National Library
of Canada

Bibliothèque nationale
du Canada

Canadian Theses Service

Service des thèses canadiennes

Ottawa, Canada
K1A 0N4

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

NL-339 (r. 88/04) c

Canada

THE UNIVERSITY OF ALBERTA

CAREER ASPIRATIONS AND LABOUR MARKET EXPERIENCES: A STUDY OF EDMONTON HIGH SCHOOL GRADUATES

by

SUSAN EMPSON-WARNER

©

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF ARTS

DEPARTMENT OF SOCIOLOGY

EDMONTON, ALBERTA
SPRING, 1989

National Library
of Canada

Canadian Theses Service

Ottawa, Canada
K1A 0N4

Bibliothèque nationale
du Canada

Service des thèses canadiennes

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-52964-4

Canada

THE UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR	SUSAN EMPSON-WARNER
TITLE OF THESIS	CAREER ASPIRATIONS AND LABOUR MARKET EXPERIENCES: A STUDY OF EDMONTON HIGH SCHOOL GRADUATES

DEGREE FOR WHICH THESIS WAS PRESENTED MASTER OF ARTS

YEAR THIS DEGREE GRANTED SPRING, 1989

Permission is hereby granted to THE UNIVERSITY OF ALBERTA LIBRARY to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

(SIGNED) Susan Empson-Warner

PERMANENT ADDRESS:

4201 - 1174 Hooke Road
Edmonton, Alberta
T5A 4A4

DATED December 15 1988

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled CAREER ASPIRATIONS AND LABOUR MARKET EXPERIENCES: A STUDY OF EDMONTON HIGH SCHOOL GRADUATES submitted by SUSAN EMPSON-WARNER in partial fulfilment of the requirements for the degree of MASTER OF ARTS.

Supervisor

Michael V. Gillespie

Date - Dec. 15, 1988

To my parents

Abstract

Previous research has shown that the career aspirations of youth play an important role in the status attainment process. Most of the existing studies of the determinants of career aspirations have focused on individual and socioeconomic background factors. While this approach has led to a prolific record of research, economic changes which have since occurred in Canada and most of the industrialized world have highlighted the need to approach the study of career goals within the context of the labour market situations faced by youth during the transition from school to work. This study takes an initial step in that direction by asking whether or not the career aspirations of high school graduates are modified as a result of their initial labour market experiences after high school.

The data used to examine this research question are from the Edmonton high school subsample of the Youth Employment Study. The analysis is based on data collected in Year One and Year Two (1985-86) of the three stage longitudinal panel design study. Since the data were collected in the midst of an economic recession in Western Canada, the youth who comprise the focus of this study were forced to deal with high unemployment rates and declining job opportunities for youth.

The analysis reveals that despite overall stability in occupational goals over time, there is a clear negative influence of unemployment on career aspirations in Year Two, controlling for aspirations in Year One. It appears that limited opportunities in the labour market can serve as structural constraints on the choices of youth. This finding highlights the necessity of rethinking earlier theories of inequality and the transition from school to work. It has shown that labour market variables can and must be incorporated into status attainment research. In addition, the results have raised further questions about the process by which aspirations are modified for the many youth who will not attain their initial level of aspirations.

Acknowledgments

I would like to express my sincerest appreciation to the many people who have helped and supported me throughout my course of studies. Foremost among them is my supervisor, Dr. Harvey Krahn, who always made time for me, no matter how busy his own schedule. His advice and guidance provided the encouragement I needed to pursue and complete this project. I also owe a great deal of thanks to the members of my committee, Dr. Anne Marie Decore, Dr. Mike Gillespie and Dr. Graham Lowe, for their helpful comments and insights. In particular, I would like to thank Dr. Mike Gillespie for his statistical advice during the final phase of the data analysis, and Dr. Graham Lowe for his constructive comments on the final draft of the thesis.

I would also like to express my gratitude to the people and agencies whose own work is responsible for the rich data source to which I was generously allowed access. The data used in this thesis come from the Edmonton high school sample of the Youth Employment Study, conducted by Professors Tim Hartnagel, Harvey Krahn, and Graham Lowe at the University of Alberta. The study was funded by Alberta Manpower, the Social Sciences and Humanities Research Council, the University of Alberta, the City of Edmonton and the Solicitor General Canada.

Lastly, I would like to express my dearest thanks to my friends and family. To my new friends from University, especially my office pals from T4-19, thank you for helping to make this period of my life a rewarding one. To my dear old friends, thanks for your support and understanding. To my husband, Garth Warner, thanks for your love, your encouragement, and your unfailing faith in my abilities. Your understanding and patience have meant a great deal. Finally, I thank my parents, Sophie and Stan Empson, for their love and support. Without their encouragement throughout all of my life, I would never have fulfilled my own aspirations.

Table of Contents

Chapter Page

I. Introduction ... 1

II. Literature Review ... 4

A. Theoretical Background ... 4

Social Psychological Approaches ... 5

Sociological Approaches ... 6

B. Canadian Research ... 19

C. Shortcomings of Traditional Canadian Research and New Directions for the Future ... 28

D. Summary and Hypotheses ... 34

III. Data and Methods ... 38

A. Data ... 38

B. Measurement ... 40

C. Analysis ... 44

IV. Level of Goals at Time One ... 46

A. Realistic or Unrealistic Career Goals? ... 46

B. Replication of Status Attainment Models ... 49

C. Summary and Conclusions ... 60

V. Work and School Experiences in the Year Following High School ... 62

A. School versus the Labour Force ... 62

B. Type of Education ... 68

C. Time Spent In Education ... 73

D. Labour Market Experiences ... 77

E. The Labour Force Group ... 82

F. Summary and Conclusions ... 85

VI. Change in Goals Between Time One and Time Two ... 87

A. Missing Data on Change ... 87

B. Overall Change ... 92

C. Summary and Conclusions 95

VII. Examination of the Change: Extension of the Status Attainment Model 96

A. Preliminary Analysis 96

B. The Final Model 102

C. Summary and Conclusions 106

VIII. Conclusion 107

A. Summary of Findings 107

B. Discussion 109

C. Suggestions for Further Research 113

Bibliography 117

List of Tables

Table Page

4.1 Occupational Aspirations of 1985 Edmonton High School Students, and Occupations Held in the 1981 Canadian Labour Force 47

5.1 Plans to Continue Education (Time One) by Educational Activity (Time Two) 64

5.2 Effects of Individual Characteristics, Background Factors, and Work Experience on Continuing Education 65

5.3 Type of School Respondents Planned to Attend at Time One by Type of School Actually Attended at Time Two 69

5.4 Type of School by Individual Characteristics, Background Factors, and Work Experience 71

5.5 Average Months Spent in School by Type of School 74

5.6 Average Months Spent in Paid Employment by Educational Activity 76

5.7 Labour Market Experiences and Evaluations, One Year After High School 78-79

6.1 Change in Career Goals Between Time One and Time Two 88

6.2 Mean Value of Goals at T1 for Each Level of Change 94

List of Figures

Figure | Page

4.1 Path Model of Occupational Aspirations at Time One with A Dummy Variable for Sex 56

4.2 Path Model of Occupational Aspirations at Time One for Females Only 57

4.3 Path Model of Occupational Aspirations at Time One for Males Only 58

7.1 Extended Status Attainment Model of Occupational Aspirations at Time Two for Females Only 98

7.2 Extended Status Attainment Model of Occupational Aspirations at Time Two for Males Only 99

7.3 Extended Status Attainment Model of Occupational Aspirations at Time Two for the Total Remaining Sample (Final Model) 103

I. Introduction

Youth and their plans for the future are an important area of concern for all of us. It is the youth of today who will be left to address our nation's problems; included in this responsibility is the necessity of working to maintain a viable Canadian economy. As such, it is important to understand how the youth of today are channelled into various career pathways. Research has shown that career goals play an important part in the status attainment process, both by directly influencing later attainments and by mediating the effect of socioeconomic background factors on attainments (Sewell, Haller and Portes, 1969:88,90; Sewell and Hauser, 1972:854,858-59; Haller and Portes, 1973:62). Findings such as these highlight the importance of understanding the determinants of career aspirations. Most would agree that the formation of these goals does not occur in a vacuum. Therefore, it is important to approach the study of these goals in the context of the situations faced by youth at the point when they attempt to translate their plans into actions. This realization led to the formulation of the main research question of the thesis: Are the career goals of youth modified as a result of initial work/career related experiences after high school?

The relevance of this question to the study of career aspirations was highlighted by the local economic situation at the time these youth were studied. Kennedy and Mehra asserted that "a number of communities in Western Canada have undergone important economic and social changes in the last decade with the oil boom turning into deep recession" (1985:102). The province of Alberta, which once enjoyed the benefits of an oil boom economy, was among the hardest hit by the recession of the early to mid-1980s. The Edmonton high school youth who comprised the focus of this study were forced to deal with rising unemployment and reduced job opportunities. This meant that the initial work/career related experiences of many of them would be negative. In May of 1985, at the time of the initial survey, the unemployment rate in Alberta for 15-19 year olds was 20.1%. This compared to a rate of 13.8% for 20-24 year olds and 8.9% for those 25 years and over (Statistics Canada, 1985:64). In May of 1986 when the first follow-up survey was conducted, little had changed. Unemployment rates in Alberta for 15-19 year olds stood at 18.0%; this compared to a rate of 15.8% for 20-24 year olds and 9.0% for those 25 and over (Statistics Canada, 1986:64).

These changes in the Alberta economy, paralleled by major economic restructuring throughout the industrialized world, pointed to the necessity of rethinking earlier theories of inequality and the transition from school to work. However, the lack of research done in a recession has left many questions regarding which theoretical path to follow. Nevertheless, one point of consensus emerges among the debates: it is now necessary to focus on both the demand for and the supply of labour in any comprehensive consideration of career goals and/or attainments. Over thirty years ago, Blau and his associates (1956) suggested that experiences in the labour market affect occupational expectations and may also affect preferences. They suggested that research into the occupational choice process should include repeated interviews with entrants into the labour market "to discern how modifications in occupational expectations and values are produced by various social experiences, such as inability to get a job, expulsion from professional or vocational school, being repelled by unanticipated aspects of the work, and many others" (539).

The central hypothesis of this thesis builds on this earlier seminal recommendation. It argues that the career goals of high school students will be modified as a result of initial work-related experiences encountered after high school. Despite early urgings by Blau et al. (1956) towards this type of research, as yet, no empirical work exists in Canada which directly examines whether or not aspirations are modified in light of experiences in the labour market. However, two analyses which directly tested this hypothesis in Britain have supported it (Roberts, 1968:174; Wallace, 1987:37-39,126). Indications that this may also be the case in Canada is provided by the finding that adolescents may hold unrealistic expectations towards the future, even though they are aware of things such as high unemployment rates on an intellectual level (Baker, 1985). This implies that the realities of the labour market do not really influence youth until they have actually experienced them.

The present approach to the research question proceeded in several stages. In Chapter Two, a review of the current literature relating to the study of career aspirations is presented. It highlights the major theoretical approaches and empirical work in this area. In particular, this review highlights the way in which the insights of various approaches could be combined to form a more comprehensive theoretical framework for the study of career goals. The literature review concludes by relating the discussion contained within it to the formation of the present research questions. The data and methodology used to explore the research questions are described in Chapter Three.

The analysis of the data proceeds in four distinct stages, presented in chapters Four to Seven. The first three sections comprise the background to the main question, while the fourth section addresses the main question itself. Chapter Four begins with a simple descriptive look at the career goals of youth as they prepare to leave high school, followed by an analysis of these goals in the framework of a traditional status attainment model. Chapter Five involves a descriptive look at the initial experiences of youth during the first year after high school. The analysis presented in Chapter Six involves a determination of whether or not there was any change in career goals for the sample.

Since there was indeed a change, the fourth and final section of the analysis proceeded as planned. Chapter Seven presents the results of this analysis. The change in career aspirations was examined within the framework of an extended status attainment model. The summary and conclusions based on the foregoing sections are presented in Chapter Eight. This final chapter highlights the main findings of the study and discusses their implications for future research.

II. Literature Review

In order to fully understand the issues involved in the current study it is necessary to review the existing sociological literature on the formation of career aspirations. The bulk of the theoretical and empirical work on career goals is engulfed within the much larger areas of the transition from school to work and the structure of inequality.[1] We begin by reviewing the main theoretical approaches in the area. Following this, a review of the relevant Canadian empirical work is presented. Finally, it is argued that career goals can best be studied by a model which provides a synthesis of the strengths inherent in various sociological theories. In particular, the status attainment model can be improved upon by a consideration of the critical orientation provided by neo-Marxist and class reproduction theories, and more importantly, by attention to labour market variables indentified in segmentation approaches.

A. Theoretical Background

The study of occupational goals has been approached from a number of different perspectives. In general, the research has followed two broad theoretical orientations, which can be further subdivided into a number of individual theories. The first theoretical course consists of social psychological research which focuses on process or socialization models of career goal formation. In contrast, the second theoretical tradition consists mainly of sociological research which focuses on the structural factors involved in the formation of career goals. The two dominant theoretical approaches are not mutually exclusive; in many cases their concerns overlap. However, they can usually be distinguished by the relative importance they give to individual versus structural/allocative factors.

---

[1] For an overview of the structure of inequality in Canada see Hunter (1986). For an overview of other issues related to the transition from school to work see Hogan (1986), who argues that we must recognize the multidimensionality of the transition and must also understand the societal context in which it takes place.

Social Psychological Approaches

The social psychological approach to career goals is extensive and varied (Ginzberg, Ginsburg, Axelrad and Herma, 1951; Super, 1953, 1980; Holland, 1959, 1973). Nevertheless, the common element in this area is the view that the formation of career goals is a process, usually linked to the development of personality or self-concept. For example, the theory presented by Ginzberg et al. (1951) consists of three basic propositions: 1) occupational choice is a developmental process consisting of a series of decisions made over a period of years; 2) the process is largely irreversible; and 3) the process ends in compromise (1951:185-198). In addition, these authors argue that the process of occupational choice is marked by movement through three phases: the fantasy period, the tentative period, and the realistic period (186).

Super (1953:186-187) presents a similar theory of career development, but attempts to alleviate some of the limitations inherent in Ginzberg's approach. Super argues that vocational choice and adjustment is a continuous process which can be summed up by a series of life stages (189). Further, this process is essentially that of developing and implementing a self-concept, which involves a compromise between individual and social factors (190). In a later version of his theory, Super presents his argument by way of what he terms a 'Life-Career Rainbow'. In what appears to be little more than a play on words, he asserts that the "simultaneous combination of life roles constitutes the life-style; their sequential combination structures the life-space and constitutes the life cycle. The total structure is the career pattern" (1980:228).

In a somewhat different theoretical formulation, Holland argues that people making vocational choices search for situations which satisfy their personality orientations (1959:35). He asserts that a person's preference for a particular environment appears analogous to the effects of psycho-sexual history (39). However, the details of this relationship are not explicated further. In a later reformulation of his theory, Holland argues that people search for environments which match their personality. The resulting behavior is then determined by the interaction of personality and environment (1973:2-5).

While by no means comprehensive, this overview gives an indication of the focus of the social psychological approach. Roberts (1968) has been severely critical of this approach. Using the results of an empirical analysis of British young men, Roberts argues that Ginzberg and Super have attributed too much importance to the role of occupational choice in the transition into work. Roberts indicates that the typical pattern of interaction in his data "seems not to be for jobs to be entered upon the basis of ambitions, but for ambitions to be adapted to the occupations that young people find themselves able to enter" (1968: 174). On the basis of this, he argues for the development of an alternative sociological theory which recognizes that attainments are constrained by opportunity structures (176-180).

The argument that Roberts presents concerning the adaptation of career goals is essentially the argument of this thesis. Nevertheless, two cautions must be applied. First, as Roberts himself acknowledges (180), the North American literature has found that ambitions do play a role in the course of careers. It is generally accepted that North America is a somewhat more open society than Britain in terms of opportunity structures. Secondly, I would argue that the occupational goals or choices of youth are constrained by structure in the same way as attainments are. This realization resolves the apparent inconsistencies in the research findings, which on the one hand indicate that goals influence attainments, while on the other hand indicate that goals are the result of differential opportunity structures. It is clear that we cannot confine ourselves to an approach which ignores the role of structural factors in the determination of occupational aspirations.

Sociological Approaches

This thesis focuses mainly on structural factors dealt with by the sociological tradition. Because occupational goals fall within an area of major concern for sociologists, that of inequality, the theoretical approaches to this subject are extensive and varied. Within the sociological tradition, the main theoretical impetus has come from British and American work. Although researchers in the two countries have followed very different methodologies in their research, some similarities can be identified in their theoretical orientations. But, perhaps of greater utility is a consideration of how the divergent elements in these theoretical traditions may complement one another. This will be considered later. First, we will outline the dominant theoretical trends in each of the two countries.

British Research

Two main theoretical approaches can be identified in the British research: 1) reproduction theories; and 2) labour market segmentation theories.[2] Contemporary reproduction theories can be traced to ideas present in the works of the classical theorists, in particular, to Marxist conceptualizations of education as an exploitative instrument of the capitalist state (Hughes, 1987). Recent writers have identified three different types of reproduction analyses: 1) social reproduction theories; 2) cultural reproduction theories; and 3) cultural production or resistance theories (Giroux, 1981; Willis, 1981; Hughes, 1987).

Theories of social reproduction "share the assumption that the economy/school nexus represents the most important element in the reproduction of class relationships in industrialized capitalist societies" (Giroux, 1981:4). Often their analysis is presented in terms of a simple correspondence thesis which posits that the school functions to prepare workers for the labour market, thus serving the capitalist state. Willis maintains that theories of social reproduction are subject to all the hazards of functionalism, as they focus on only the most general features of relationships (1981:50). Moreover, it is clear that these theories are highly structuralist, deterministic conceptions of the reproduction of class structure. Human agency is relegated to a passive model of socialization, and power is seen only as a negative force reducible to the economic sphere (Giroux, 1981:7). These theories ignore the mediating role of culture in the reproduction of class structure.

In contrast, theories of cultural reproduction attempt to give priority to the role of culture. Cultural reproduction theories seek to answer the same questions as social reproduction theories, but they examine how culture becomes the mediating link between dominant class interests and everyday life (Giroux, 1981:8). These theories argue that culture provides a medium through which the dominant class can exercise symbolic power through the imposition of its own definition of the social world. However, these theories fail to recognize the role of countervailing power and counter-hegemonic struggle, subscribing instead to a rendition of hegemony in which the cycle of reproduction seems unchangeable (Giroux, 1981:11; Willis, 1981:57). Despite the inclusion of the role of culture, these theories tend to reduce to deterministic accounts of reproduction.

---

[2] This is not to say that all the British research can be easily fitted into one of these two categories. For example, Goldthorpe's (1980) concern with mobility and its implications for class formation and class action, in some respects overlaps the concerns of the two theoretical schools identified, yet it does not fit into either. Thus, while identifying these two traditions as dominant, it must be remembered that they do not represent a comprehensive account of all the British work in relation to class structure or status attainment.

In response to previously neglected issues of human agency and resistance, recent work coming under the heading of cultural production or resistance theories has attempted to eliminate deterministic and non-dialectical accounts of reproduction.[3] Willis asserts that for a properly dialectical notion of reproduction "our starting point should be in the cultural milieu, in material practices and productions, in lives in their historical context in the everyday span of existence and practical consciousness" (1981:49). Theories of cultural production or resistance focus on history, conflict and struggle, consciousness, and creative self-formation within the subordinate class (Giroux, 1981:12; Willis, 1981:49). Rejecting the pessimistic assumptions of social and cultural reproduction theories, cultural production or resistance theories open up the possibility of social change. Nevertheless, these theories have been criticized for their romanticized portrayal of the working class and their neglect of those segments of the working class that accept the logic of domination (Giroux, 1981:13-14).

The work of Willis (1977) has become a classic in the area of reproduction. Focusing heavily on the school system as the instrument of reproduction, Willis presents an ethnography of the transition from school to work of non-academic working class boys in a town in England in the early 1970s. In a cultural production analysis, he documents how the counter-school culture of working class boys is very similar to the shop floor culture into which the majority of these youth are headed. Willis highlights the role that the 'lads' play in reproduction by focusing on how the cultural milieu of the counter-school culture results in a glorification of manual labour and the masculinity it portrays. In relation to the occupational aspirations of these youth, Willis concludes that particular job choice does not matter much because most manual and semi-skilled jobs are the same in terms of the criteria of working class culture that these boys are socialized for. He argues that the concept of 'job choice' is a middle class construct not applicable to the labour market entry of working class boys (1977:99).

---

[3] In addition to the cultural production research, another course of theoretical work giving human agency the central role in stratification has emerged in the sociological literature. In an analysis of the educational choices of Italian youth, Gambetta (1987) argues that subjects tend to rationally evaluate various elements in making educational decisions. While conceding that structural inequalities exist, Gambetta downplays his findings which show the constraining influence of structure, and argues instead that intentionality and preferences are the most important element in educational choices. In a sense, Gambetta's approach is much like the social psychological orientation reviewed earlier.

In an analysis which departs from that presented by Willis (1977), Jenkins (1983) presents an ethnography documenting the transition from school to work of the young men and women of a housing estate north of Belfast. He derives his theoretical views from Gidden's concept of structuration and argues that "social structure can only be said to exist in the actions of those people who reproduce and produce it, through the manipulation of its constituent elements, rules and resources, in their everyday transactions" (1983:11). While tackling a different but similar topic to that of Willis (1977), Jenkins is critical of what he sees as Willis' overestimation of "the degree to which the working class colludes in its own domination" (1983:7).

Using a life-style (subculture) model to analyze the way in which class distinctions within the working class are produced and reproduced in practice, Jenkins identifies three life-styles adopted by the youth he studied. These three life-styles consist of the lads, the ordinary kids, and the citizens, and they range on a continuum from the 'rough' to the 'respectable' (41-42). In contrast to Willis (1977), Jenkins finds that his 'lads' do not share an orientation to unskilled work. Rather, there is better reason to assume that their present unskilled status reflects a failed goal, not a conscious choice of occupational careers. Going beyond this, Jenkins also criticizes the notion of occupational choice on the grounds that it is not equally distributed throughout the labour market (1983:74-78).

Jenkins argues that the differences in life-styles he identified are not simply a reflection of their own cultural orientation; just as important are factors external to the individual (83,113-114). In his conclusion, he identifies three dimensions to the process of reproduction: "first, that which reflects the practices of young people themselves, second, that which is located in the practices of significant others, and third, that which relates to the organization of the institutional context within which both sets of practices are located" (1983:130). While Willis (1977) focused on the individual, Jenkins (1983) adds the role of external factors to the analysis of reproduction.

This recognition of the role of factors external to the individual is carried further in the analysis of Wallace (1987). Using both qualitative and quantitative methodologies, Wallace follows a cross-section of youth on the Isle of Sheppey, England over the period of 1979-1984, from the time the youth were sixteen years of age to the time they were twenty-one. Working within the theoretical context of social and cultural reproduction, Wallace hypothesizes that rising unemployment and the restructuring of the labour market have led to a potential 'fracture' in the process of social and cultural reproduction (1987:4). This hypothesis is generally confirmed in her results.

In contrast to Willis (1977), whose 'lads' viewed one unskilled manual job as much the same as another, in Wallace's analysis school leavers saw important distinctions between different kinds of manual work (49). In addition, Wallace finds that the positive orientation to manual work voiced by Willis' 'lads' was not consistent with the opinions of the majority of working class school leavers on the Isle of Sheppey (55). The youth she studied were selective about the kinds of employment they would take, leading her to conclude that youth are not socialized to accept their positions in the work force before they leave school (68-69). According to Wallace, social and cultural reproduction is a longer-term process than was previously thought. Wallace found that occupational aspirations in 1979 broadly fitted educational credentials and parental background, yet when 1979 aspirations were compared with first job obtained, the majority of youth did not find the jobs that they wanted, resulting in a modification of aspirations for many youth (1987:37-39).

This research, which was conducted in a recession, found that "subjective perceptions of status did not fit objective labour market conditions" (Wallace, 1987:39). In addition to the unrealistic nature of aspirations, it was also found that job preferences were gender-specific (44-45). Unlike the majority of researchers, Wallace presents a "gendered" understanding of the reproduction of class. In an article based on the same data as described here, she concisely argues that both the public and the private sectors have to be considered in order to understand the reproduction of class for both sexes

(1986).[4]

In the follow-up study, Wallace indicates that the downward mobility in aspirations noted in 1979 was further confirmed in 1984 (1987: 126). Subjective perceptions had to be changed to fit with objective conditions and many respondents had forgotten what original aspirations they had held (126). However, these findings must be viewed with caution due to the high degree of sample attrition in the follow-up study. Wallace concludes that the process of social and cultural reproduction has been fractured by the recent restructuring of employment (224-225). She proposes a new model of social and cultural reproduction which recognizes the fact that it is a longer-term process than previously thought, and that transitions into work are paralleled by those into the family (225).

As can be seen from the preceding discussion, reproduction theories have evolved from narrowly focused, deterministic accounts of stratification into much more comprehensive explanations. While Willis (1977) focused on the individual, both Jenkins (1983) and Wallace (1986) add external factors such as the behavior of employers and the structure of the labour market to the analysis of reproduction. Stewart, Prandy and Blackburn (1980) argue for a process approach to reproduction. They assert that structure and action must be merged in order to understand reproduction. Therefore, they indicate that the focus of analysis should be on allocation processes which serve to reproduce this structure (277-283). 'Resistance' or 'cultural production' theories conform to the recommendations of Stewart et al. (1980) by their inclusion of factors external to the individual in their analysis.

Turning to the second major British theoretical school, labour market segmentation, the focus of concern shifts as these theories give priority to a different set of questions.[5] Reproduction theories are concerned with how inequalities are reproduced, while labour market segmentation theories focus on how the structure of

---

[4] The work of Gaskell, a Canadian researcher, is also notable for its "gendered" understanding of reproduction. In a review of a wide body of literature, she concludes that women are channelled into a segregated labour market through a segregated school system (1988).

[5] Although labour market segmentation arose as an American theoretical school, American researchers have not yet applied the theory to the study of career aspirations, whereas British researchers have. Therefore, this theory is discussed under British theoretical approaches to career aspirations.

the labour market affects employment outcomes. Initially developed as a means of explaining the distribution of income (Ashton and Maguire, 1986a:22), recent developments in segmentation theory have resulted in it being applied to areas such as unemployment (Schervish, 1983; Ashton, 1986), and of particular importance here, the youth labour market (Ashton and Maguire, 1986a; 1986b; Ashton, 1988).

Substantial variation exists among the different segmentation theories, and informative summaries have been provided elsewhere (Clairmont, Apostle and Kreckel, 1983; Schervish, 1983:8-34). In order to make sense of the literature, Schervish (1983) has identified some common themes in general labour market segmentation theories and research. Using a broad definition of segmentation, Schervish identifies the fundamental proposition common to this wide body of material: qualitatively different economic processes govern different sectors of the economy (8-10). There is a consensus that real boundaries exist between economic units. However, there are debates over how to divide market segments, and how segmentation in one area interacts with segmentation in another. Nevertheless, accepting some degree of segmentation of the labour market, these theories reject orthodox models of a free and competitive economy (Clairmont, MacDonald, and Wein, 1980; Clairmont, Apostle and Kreckel, 1983; Schervish, 1983).

Segmentation perspectives view unequal returns in different sectors as a fundamental feature of advanced capitalist society (Clairmont et al., 1980:289; Schervish, 1983:18). Furthermore, the rules of the market vary for different sectors. Vulnerability and power come to occupy a primary role in the workings of the economy which was not afforded them in neoclassical economic views (Schervish, 1983:17-18). Nevertheless, Rubery (1978) still criticizes many of these models of segmentation for not recognizing the role of worker organization, and for presenting too static a conceptualization of the labour market.

The type of evolutionary, dynamic analysis of the labour market recommended by Rubery (1978) is provided in some of the recent literature on segmentation. Ashton (1986) argues that actions by those in control of the state, capital, and the supply of labour account for the emergence of job shelters which protect workers in certain segments from arbitrary dismissals and displacement due to fluctuations in the demand for labour. He cites the role played by education and certification, and the gatekeeping functions of employers' recruitment strategies in deciding who gains access to sheltered segments of the labour market (74-81). This variability of access to different sectors of the market has provided the main focus in segmentation theory developments which have focused on the youth labour market.

The application of the segmentation model to the problems of the transition from school to work is a development introduced by researchers in the United Kingdom. British researchers have fruitfully applied the American originated segmentation model to research on youth. These segmentation theorists argue that youth face a distinct market. Drawing on the findings of three British studies, Ashton and Maguire conclude that "the range of job opportunities open to 16 year old school-leavers is very different to that facing adults" (1986a:6). These researchers identify eight major labour market segments divided by occupational groupings and sex. Findings of their research indicate that youth are effectively excluded from some segments such as professional/managerial jobs, and are the preferred type of labour for others such as skilled manual jobs which carry age restrictions for recruitment into apprenticeships (1986a:6-11).

In a particularly informative empirical research project, Ashton and Maguire (1986b) studied the experience of 18-24 year old males and females in each of four local labour markets in Great Britain. The lack of any post-secondary, degree-oriented education was the sole qualifying factor for inclusion in the sample (13). The research undertaken in 1982/83, a period of severe recession and record levels of unemployment, found that although social origins and educational attainment are still positively related to the level of entry into the work force, the local labour market now plays a more important part in explaining the young adults' experience of the transition from school to work. Ashton and Maguire conclude that the recession has upset previously established relationships between social origins, school experience, and level of entry into work that were characteristic of the 1960s and 1970s (1986b:32).

In addition, these researchers found support for their hypothesis which stated that different rules and criteria govern entry into the various segments of the labour market (1986b:2). In a summary of their findings they identified four distinctive features of the young adult labour market: 1) there are limited points of entry, 2) young people are excluded from many semi-skilled and unskilled jobs, 3) sex segregation is more prevalent than in other markets, and 4) major differences exist among the four local markets studied (2). The segmentation effects they identified were along three dimensions consisting of skill level, age and sex (103-104). Unlike Wallace's (1987) sample who initially held unrealistic occupational aspirations in the face of objective conditions, Ashton and Maguire found that in their sample, respondents' aspirations while they were still in school "showed an awareness of the availability, or non-availability of opportunities in the local market" (1986b:3). The disparity in the findings of Wallace (1987) and Ashton and Maguire (1986b) may be related to the different research designs. Ashton and Maguire examined four local labour markets, while Wallace only focused on one, using a more qualitative approach.

The main insight that labour market segmentation theories add to the understanding of aspirations is the fact that demand factors in the labour market have to be considered in any comprehensive account. In a period of high unemployment, technological change, and industrial shifts, it is no longer satisfactory to rely on explanations based exclusively on personal attributes and social background characteristics (Ashton and Maguire, 1986b:2). This realization points to weaknesses in many of the reproduction approaches which give class structure, or more recently human agency, all powerful roles in the determination of occupational outcomes without a consideration of the forces operating within the labour market.

Nevertheless, this criticism does not apply to all reproduction research. Jenkins' (1983) ethnography is an example of research which represents a major advance in uniting the insights of the two dominant British traditions. By including in his analysis the effect of factors in the labour market, such as the behaviour of employers, he demonstrates how individual agency, social background, and labour market structure interact to produce outcomes. The heuristic value of combining the insights of various approaches will become more apparent after we have considered the dominant American theoretical traditions.

American Research

In contrast to the British tradition, American research has had a somewhat different focus. The main theoretical perspectives are the status attainment models of

Blau and Duncan (1967) and the "Wisconsin school", and the more recent neo-Marxist approach to which Eric Olin Wright is the major contributor. Blau and Duncan's classic work The American Occupational Structure (1967), has provided the basis for a large body of research which has followed in their path. The model they developed is essentially an attempt to reconceptualize questions of mobility research into a more resourceful analytical framework (Haller and Portes, 1973:56). It allowed for the unification of earlier research on the status implications of family background with research on the allocative importance of education (Goyder, 1984:333). The model originally developed to explain the status attainment of American males has since been successfully applied to other populations (e.g. Cuneo and Curtis, 1975). Blau and Duncan's model consists of two indicators of social class origin, namely father's education and father's occupation, which are seen to have positive influences on education, which in turn positively affects a person's first and current jobs.

Departing from previous mobility research both methodologically and substantively, Blau and Duncan base their research on "the assumption that the understanding of social stratification in modern society is best promoted by the systematic investigation of occupational status and mobility" (1967:5). Their analysis of the American occupational structure, based on 1962 data collected from a representative sample of over 20,000 males between the ages of 20 and 64 years, found that "[a] man's social origins exert a considerable influence on his chances of occupational success, but his own training and early experience exert a more pronounced influence on his success chances" (402). Higher status family origins increase one's chances of obtaining superior occupational status mainly through their influence on education (430). Taken together, social origin, education and career beginning accounted for slightly less than half the variance in occupational achievement (403). While Blau and Duncan find that there is a high degree of mobility in the United States, they acknowledge that most of it involves relatively short social distances (420).

The value of Blau and Duncan's work resides not only in its substantive findings but in its innovative methodology (Anisef, Baichman, Northrup, Rhyne, and Tibert, 1986). Duncan's introduction of path analysis has had a significant influence on the direction of further research in the area. In addition, Blau and Duncan's approach to measuring social stratification represented a major turning point. What differentiates status attainment research is occupation measured on a continuum of popular evaluation indicating superiority/inferiority (Horan, 1978:535). In addition, unlike previous mobility research, individual attainment was conceptualized as a process. This reconceptualization of mobility patterns into status attainment processes led to a shift in the focus of stratification research (Kerckhoff, 1984:40; Krahn and Lowe, 1988a:80).

Unlike the Blau and Duncan model, which does not deal with occupational goals, the Wisconsin model adds such goals as an intervening factor between social origins and occupational outcomes. This theoretical model takes a number of different forms, and the American research using one or another varieties is extensive (Sewell, Haller and Portes, 1969; Sewell and Hauser, 1972; Haller and Portes, 1973; Alexander and Eckland, 1974; Alexander and Eckland, 1975; Alexander, Eckland and Griffin, 1975). Despite the variation, this approach is basically an attempt to extend the structural allocation approach of Blau and Duncan to include social psychological variables. In addition to the inclusion of occupational goals, the Wisconsin model usually includes the influence of significant others, mental ability and academic performance, and educational goals as factors which can serve to mediate the influence of social origin on attainment. Kerckhoff asserts that this approach is basically a socialization model of status attainment (1976, 1984:142). However, he correctly argues that both socialization and allocation aspects influencing the process must be considered (1976). In addition, a socialization model and an allocation model cannot be fully differentiated in as far as both perspectives view the human agent as a product of his social environment (1976:369).

Haller and Portes note that while the main thrust of the Blau-Duncan model is on the structure of status transmission, the Wisconsin model highlights social psychological dynamics mediating interpersonal influences on individual attainment (1973:51). The Wisconsin model attempts to elaborate the finer mechanisms through which educational and occupational attainment are met (Haller and Portes, 1973:58; Kerckhoff, 1984:141). Like Blau and Duncan, the Wisconsin model finds that the path to high occupational status is through higher education (Sewell, Haller and Portes, 1969:89; Sewell and Hauser, 1972:854; Haller and Portes, 1973:62; Alexander and Eckland, 1975:490;

Alexander, Eckland and Griffin, 1975:331,336). However, the model also indicates that the effect of socioeconomic background on educational and occupational attainments is mediated through the effect it has on social psychological factors, which include occupational goals (Sewell and Hauser, 1972:854; Haller and Portes, 1973:62,69; Sewell, Haller and Portes, 1969:90). Drawing upon symbolic interactionist theory, the Wisconsin model argues that aspirations are formed in social interaction and serve to influence later attainments (Knottnerus, 1987:116). Haller and Portes found that indirect parental status effects occur mainly through significant others' influence which, in turn, affects status aspirations which act directly on educational attainment (1973:62).

Perhaps the greatest relevance of the Wisconsin model to our research is the finding that occupational goals do have an influence on occupational attainments (Sewell, Haller and Portes, 1969; Sewell and Hauser, 1972; Haller and Portes, 1973). Sewell and Hauser (1972) found that only a quarter of the effect of occupational aspiration on occupational status is mediated by educational attainment. "The remainder represents an effect of aspiration on achievement which is completely independent of socioeconomic background, ability, high school performance, and educational attainment" (1972:858-859). However, not inconsequentially, Alexander, Eckland and Griffin (1975:333) found that while the impact of status origins on occupational aspirations is usually negligible, father's occupation was the exception, having a significant influence on occupational aspirations.

Based on a review of such research, Haller and Portes conclude that aspirations are formed as a result of two related processes: "those brought to bear on the individual by his significant others and those brought to bear by the person himself as he assesses his potentialities on the basis of past performance" (1973:87). They go on to argue that while crystallized aspirations exercise primary influence on status attainment, other contextual variables such as encouragement by others and previous educational attainment, act as facilitators of the process (87). The Wisconsin model's addition of several variables to the simple Blau-Duncan status attainment model not only clarified the nature of the origin-attainment relationship, but also increased the amount of explained variance (Kerckhoff, 1984:141). Unfortunately, most of the Wisconsin analyses have been limited to male respondents. Adequate explanations of the status attainment process require a consideration of both sexes, as the factors influencing males and females may differ. In fact, these models have been shown to have weaker explanatory power for women (Kerckhoff, 1984:142), which is a cause for criticism of the Wisconsin model.

Departing radically from the two status attainment models is the third major theoretical approach in the American literature, the neo-Marxist school. The neo-Marxist approach grows out of the same theoretical tradition as British reproduction theories, but has addressed questions of stratification in a somewhat different manner. Neo-Marxist theories and studies of inequality developed somewhat later in the United States (Squires,. 1977; Wright, 1980a; Wright, Costello, Hachen and Sprague, 1982) than did the previous two American models. Of the three approaches described, the neo-Marxist approach is the most eclectic, and thus difficult to summarize. Nevertheless, some common themes can be identified.

First, social class is conceptualized in terms of distinct categories which relate to the relations of production. For example, Wright develops a model which links class structure, occupational structure, class organization and class struggle (1980a). This model has become very influential and has in some respects eclipsed the status attainment model in stratification research.[6] The second common theme in the neo-Marxist approach is a concern with the reproduction of inequalities. As such, they have much in common with many social reproduction theories which posit a correspondence between education and the economy. Husen indicates that most of the neo-Marxist approaches "challenge the traditional liberal view of formal education as an instrument of progress and democracy" (1979:31). These approaches are more inclined to view the school as a mechanism of reproduction of the existing class structure and social relations of production (e.g. Squires, 1977).

Nevertheless, as Wright points out: "Marxism is not fundamentally a theory of class structure. It is above all a theory of class struggle and social change" (1980b:365). As such, it does not place its emphasis on people's status aspirations, and researchers in this tradition have spent little time on the study of career goals. However, the insights provided by the neo-Marxist approach do add to our understanding of career goal formation and stratification. In particular, these approaches highlight the importance of taking a more critical view of the current structure of inequality. Our current popular vision of a meritocratic society tends to lead toward the view that 'people get what they deserve', rather than to a consideration of possible barriers to the realization of goals.

---

[6] Although the neo-Marxist approach, as advanced by Eric Olin Wright, has become very influential in stratification research, it is given only brief attention here because it has not yet been applied to the study of the career aspirations of youth.

B. Canadian Research

By and large, Canadian empirical work[7] has followed the theoretical approaches of American research, perhaps because of the greater structural similarity of our social system to the United States as opposed to Britain. As in the United States, Canadian research has moved away from the macro-level analyses of patterns of inequality such as those presented in Porter's classic work, The Vertical Mosaic (1965), towards status attainment models which can better explain the allocation of individuals into positions. A substantial section of the Canadian research has focused on replications of the basic Blau and Duncan (1967) model or extensions of it (Cuneo and Curtis, 1975; Boyd, Jones, McRoberts, Pineo and Porter, 1981; Guppy, Mikicich and Pendakur, 1984; Boyd, Goyder, Jones, McRoberts, Pineo and Porter, 1985).

The most extensive mobility survey in Canada, the Canadian Mobility Study, used a research design modelled after Blau and Duncan (Boyd et al., 1981:657-58). Using 1973 data, this study compared the findings from the Blau and Duncan model for several subpopulations within Canada. They found that whereas the women in their sample received higher returns on their education than men, this was offset by lower returns on their social origins (1981:661-63). For women, almost all of the effect of father's occupation on their occupational attainment is indirect through education. For males the direct effect is much stronger. When the sample bias towards women with higher status backgrounds was corrected, it was seen that women were disadvantaged in the attainment of their current occupations. Boyd et al. (1981:663) conclude that sex remains one of the important dimensions of inequality in Canada.

---

[7] The present review of the Canadian literature includes only research which has been reported in English. For a review of the French Canadian research see Lessard (1987).

Boyd et al. also found that native-born respondents receive a better return on their education than do foreign-born respondents (1981:664). Nevertheless, the overall level of occupational status of the two groups is similar because the foreign-born respondents tended to come from higher status origins. In the case of comparisons between anglophones and Quebec francophones, it was found that anglophones obtained higher occupational status due to their higher overall educational level. In contrast, francophones were more influenced by their status origins than anglophones (665-66). Overall, the differences between the French and English speaking groups were not high and the process of stratification was found to be similar for both groups. In the case of ethnic stratification, the data indicated that stratification in this area has weakened over time (667). Unfortunately, their analysis of ethnic groups, francophones versus anglophones, and native- versus foreign-born was limited to male respondents. In light of known differences in the role of women among various cultural groups, the results may have been very different had both sexes been included.

Nevertheless, the overall conclusion reached was that: "In general the process of occupational attainment between populations [within Canada] is similar in that respondent's education is the major mechanism by which fathers transmit their socioeconomic status to their offspring or by which disadvantaged groups overcome their origins" (Boyd et al., 1981:670).[1] Cuneo and Curtis (1975) address the same questions as Boyd et al. but they use 1972 data from the cities of Toronto and Montreal to compare the findings of the Blau-Duncan model with four subpopulations: francophone males, francophone females, anglophone males, and anglophone females. Adding two other family background variables, mother's education and size of family of origin, they found that family background variables have rather strong effects on occupational attainment through their influence on education. However, these effects varied among the four subpopulations studied. Cuneo and Curtis conclude by cautioning the acceptance of common interpretations of Canadian and American data which use the role of education in the status attainment process to argue that achievement is more pervasive than ascription in our society. These authors argue that conclusions such as this are misleading if they neglect the fact that education is to a large extent predetermined by family background (1975:19).

---

[1] For a more detailed presentation of the findings of the Canadian Mobility Study see Boyd, Goyder, Jones, McRoberts, Pineo and Porter (1985).

Other researchers have focused on the same types of questions using different methodologies. Guppy, Mikicich and Pendakur (1984) address the question of whether or not there have been historical changes in Canadian educational inequalities, using an approach similar to Blau and Duncan's in its focus on the role of social origins in attainment. They use as evidence cross-sectional data obtained by examining various birth cohorts from the Canadian Mobility Study (1984:321). Overall, in spite of extremely crude indicators of social origins, their findings indicate that the relationship between social origin and education has weakened over time. Nevertheless, this decrease is less apparent in relation to post-secondary education than it is in relation to high school completion (328). This last point questions the finding that the influence of status origins is weakening. Guppy et al. (1984) note that the reduction in inequality they detected did not occur until the birth cohort of 1938-42 is considered. Therefore, they interpret their results as a reaction to educational reforms which were introduced in the 1950s and 1960s. They note that an important implication of this finding is that many of these reforms are being withdrawn in response to the social and economic situation of the 1980s (329).

Canadian research following the Wisconsin tradition asks the same type of questions as does the research replicating Blau and Duncan, but adds social psychological factors to the structural ones identified as important in the Blau and Duncan models. Porter, Porter, and Blishen (1982) document one of the largest pieces of Canadian research of this type. They use a cross-sectional design (with two longitudinal follow-ups of subsamples) based on data from a 1971 survey of Ontario high school students. The basic concern of their study was with accessibility of post secondary education in Ontario (1982:1).[9] Since this research was conducted in Ontario, school program was a major factor as it serves as the prime influence in streaming students into future channels. Specifically, one-half of those in the five-year academic program intended to go on to university as compared to one-tenth of the students in the four-year program (86). Several other researchers have found similar tracking effects. For example, Hein (1986) finds lower aspirations among non-academic track students in a more recent sample of Sudbury youth.[10]

---

[9] This concern is explicated in detail in an earlier presentation of results using these data (Porter, Porter and Blishen, 1973).

Although the main dependent variable in the analysis of Porter et al. was educational aspirations, occupational goals were also examined. Both occupational expectations and occupational aspirations (or preferences) were considered. Within Grade 8, 10 and 12 male and female subsamples, correlations between occupational aspirations and the more realistic expectations were high, ranging from .56 to .71. However, they were not as high as those between educational aspirations and expectations which ranged from .89 to .91 (99). Overall, over half of both sexes had expectations that were the same as their aspirations (98). It was found that the highest level of occupational aspirations were held by the Grade 8 students, whereas the level drops somewhat in Grades 10 and 12 (96). Notably, very few students aimed for unskilled occupations at the bottom of the socioeconomic scale, where many of these youths may in fact end up (97).

In general, Porter et al. (1982:100-114) find that gender, social class, mental ability, school performance, self-concept of ability, and cultural enrichment are related to the level of occupational aspirations in the same way as they are to educational aspirations. Throughout the analysis, the influence of gender and social class stood out. These two variables interact in the sense that the depressing effects of being female on occupational aims are greater in the lower social classes (293). In general, the higher the socioeconomic status, the higher the occupational aims. Fewer girls than boys expected to reach the top levels of the occupational hierarchy, but more girls than boys expected to reach the middle levels. Students with high mental ability and high self-concept of ability were more likely to aim high. However, this was more likely the higher the social class background, especially in the case of girls.

In reporting the results from a five year follow-up of the Grade 8 subsample and a one year follow-up of the Grade 12 subsample, social class was found to be positively related to educational attainment (Porter et al., 1982:275-89). So pervasive were their findings regarding the influence of social class, that the authors even explain away the exceptions to the rule by relegating them to instances of *embourgeoisement*.

---

[10] Hein's (1986) research is based on data from the Sudbury high school subsample of the Youth Employment Study, which is also the data source for the present research on Edmonton youth.

They account for lower class students with high aspirations by documenting their proximity to the middle class (240-254). The overall path model of Porter, Porter and Blishen found that while social class had no direct effect on educational aspirations, it did affect them through its influence on the program they were in, and through the importance of significant others (307). Other Canadian researchers have found similar support for social class influences on educational aspirations (George and Kim, 1971; Williams, 1972). Porter et al. (1982:313) conclude that the Ontario educational system is fairly meritocratic, although, the effect of social class on opportunity cannot be ignored. Nevertheless, they indicate that the schools did not appear to be deliberately restricting oppportunity because the influence of social class was operating indirectly.

Two other Canadian research projects were conducted using aspirations as their main dependent variable. Their similarity to the Wisconsin model lies in their concern with aspirations, not in their methodology. In the first of these analyses, Crysdale reports results derived from a 1969 sample of Grade 8 to 10 students in Riverdale, a working-class area of Toronto (1975). He finds that there are "wide gaps between jobs preferred by students, jobs they realistically expect to get, and father's occupations" (23). Crysdale found that the most notable difference between job aspirations and the more realistic job expectations was that IQ scores have the strongest positive influence on the former, but sex has the strongest impact on the latter. A full 82% of the girls as compared to 43% of the boys thought that they would actually achieve white-collar jobs (28). However, Crysdale notes that this finding was to a large extent due to girls' expectations of obtaining clerical jobs, which are classified in the category of white-collar occupations.

This measurement issue is taken up in the second Canadian analysis which focuses on aspirations as the dependent variable. Brinkerhoff and Corry account for the disparity in research findings which examine the relationship between sex and occupational goals, by the different ways in which occupations are classified (1976:265-67). As a result of the common use of classification schemes which place clerical positions in white-collar categories, thus making them appear more prestigious than they really are, Brinkerhoff and Corry argue that strong exceptions must be taken to empirical generalizations which assert that girls aim higher than boys (267). In an analysis of results gathered from Grade 11 Calgary youth, Brinkerhoff and Corry find that boys have higher occupational aspirations and expectations than girls (267). They also find that occupational aspirations and expectations are positively influenced by socioeconomic status. Similarly, the education of both parents positively influenced occupational goals (267-68).

Turning to research which clearly derives from the Wisconsin model, the analysis of MacKinnon and Anisef "puts to the test the hypothesis formulated, but not tested by Sewell and associates that *self-assessment* mediates the effects of *academic performance* on status aspirations and attainment variables"(1979:305). This research is a reaction to an analysis by Wilson and Portes (1975) which purports to disconfirm the Wisconsin model and the interactionist perspective underlying it (cited in MacKinnon and Anisef, 1979:305-07). Wilson and Portes argue for a model which is less social psychological and subjective, and more institutional and objective. In challenging the findings of Wilson and Portes, MacKinnon and Anisef use data from a 1973-74 sample of Ontario grade 12 males (1979:309). Like Wilson and Portes, they find that the influence of significant others in the status attainment process is less important than what Sewell et al. have indicated, but unlike Wilson and Portes, they do not find that its influence is transferred to more objective factors, but rather to self-concept of ability which is another social psychological variable (316). MacKinnon and Anisef speculate on possible reasons for the disparities in findings; these include, sampling differences (American versus Canadian populations), the inclusion of drop-outs by Wilson and Portes, and differences in measurement. They conclude that in general the literature tends to support the Wisconsin social psychological interpretation of status attainment rather than the institutional approach of Wilson and Portes. However, they indicate that this is not meant to downplay the role of structural factors. Rather, they feel that both types of variables play a significant role (MacKinnon and Anisef, 1979:317).

An analysis by Gilbert and McRoberts (1977) is also a Wisconsin model reaction to a more structural approach by someone else. Their work critiques research by Breton (1970), who asserted that an adolescent's educational and occupational aspirations and expectations "can be explained as much, if not more, by the position he [sic] occupies, during his formative years, in the school stratification system as by his class of origin"

(1970:253). Using 1965-66 Canada-wide data, Breton concluded that his results support the notion that an adolescent's future attainment is a function of his or her position in the school stratification system (267). Although Breton conceded that the school stratification system is in part a reflection of the larger stratification system in society, he felt that in large part it develops from processes occurring internally (253).

Gilbert and McRoberts (1977:35) argue that Breton has overemphasized the autonomy of educational structures from the larger society. They indicate that Breton's (1970) methodology is prone to valid criticisms on a number of grounds (35-36). Gilbert and McRoberts use a Wisconsin type model to analyze comparable data and arrive at different conclusions. Using 1971 data from Porter and Blishen's Survey of Ontario Students Aspirations they find that the variance in level of educational expectations is to a great extent accounted for by family influence (i.e. encouragement), school program, and self-concept of ability (44). Socioeconomic status acts indirectly through its effect on family influence and self-concept of ability (45). In the words of Gilbert and McRoberts, their "overall interpretive framework and one that appears to be supported by the data is that schools serve to perpetuate existing inequalities rather than to enhance equality of educational opportunity"(1977:45). Unfortunately they did not extend their analysis further to include occupational goals. However, in another analysis Gilbert successfully used an extended version of the Wisconsin model to explain 36% of the variance in the level of occupational expectations of Ontario grade 12 boys (1977:292).

In a later work, Breton (1972) moved away from a strictly structural approach, and expanded his analysis of the same data to a much more comprehensive approach. Although by no means as sophisticated as the Wisconsin model, due to the lack of any theoretically specified causal ordering, Breton (1972) adopted a similar approach and used similar variables. However, because he proceeded without the aid of a clearly defined theoretical model, his approach at times seems eclectic or even atheoretical. Breton stated that the conceptual framework underlying his research "is based on the simple premise that an adolescent's career development and more specifically, his [sic] intentions and decisions with respect to his future career depend on three interrelated sets of factors; his social origin; his present experience; and his attitudes (expectations, sense of efficacy) and preparedness (information, competence to deal with organizational environments) with respect to the future" (1972:3).

Breton found that social class origin was positively related to students' plans to complete high school and plans for post-secondary education (1972:138,168). Nevertheless, he did find that this relationship varied among subpopulations in his sample (138-39). Breton also finds that social origin influences students' evaluations of their ability and their sense of efficacy (143-44). Using a number of measures, he finds that in each case those of higher social origin are better off in terms of their valuation of self. On a different note, Breton also examined a variety of other attitudinal variables such as ambition and values attached to work. He concluded that although they are important they cannot be used to explain how social class affects the aspirations of adolescents (147). We are all familiar with the type of explanations that Breton is referring to (i.e. the lower classes are lazy; they don't value the work ethic, and so on). They are a part of the dominant ideology of individualism. While Breton found that social class made little difference on a number of work values, it did to a large extent determine whether or not respondents planned to use education to reach those goals (148).

Unfortunately, Breton's analysis of occupational preferences was restricted to boys. Girls were examined only in terms of whether or not they intended to pursue a career (1972:229). He finds that the occupational preferences of boys were homogeneous across all regions of the country, with more than one-half aiming for professional or managerial occupations. One exception to the rule was the Maritime provinces, where fewer boys aimed for the high status occupations. This difference held even when socioeconomic status was controlled (233-34), and could be interpreted as a labour market effect, or as Roberts (1968) would phrase it, a result of differential opportunity structures. Consistent with other studies, the higher the social class origins (as measured by father's occupation), the higher the boys were likely to aim (233). Father's education was also found to have a positive effect on son's occupational preferences, whereas the effect of mother's education varied due to its interaction with other variables (235). Mental ability and being in academic programs also positively influenced occupational preferences (235, 247). English/French differences were not found except in the province of Quebec where the English speaking aimed unusually high

(236-37).

In an analysis clearly derived from the Wisconsin tradition, Looker and Pineo (1983) addressed the role that social psychological processes play in the intergenerational transmission of social status. Their analysis is based on 1975 data from 400 Ontario teenagers and their parents. This is supplemented by a follow-up in 1979 to establish the youths' educational and occupational achievements. The researchers assert that they view teenagers' aspirations both as critical dependent variables and as potentially important intervening variables in the explanation of achievement (1983:1197-98). However, an investigation of the role of aspirations in explaining occupational achievement is not pursued in this paper.

Looker and Pineo (1983:117), while basically agreeing with the Wisconsin model's emphasis on social psychological factors as intervening variables in status transmission, suggest some revisions. First, they found that it was important to obtain information directly from significant others (in this case parents) because this measure had an impact independent of the youths' perceptions. Both parents' aspirations for their child and the youth's perception of his or her parents' aspirations deserved inclusion in the model. Second, these researchers argue that the causal ordering of self-concept of ability should be changed. They assert that it should be placed prior to parental aspirations since these aspirations are linked more strongly to it than to socioeconomic status. While conceding that there may be reciprocal influence in the model between self-concept of ability and parental influences, they argue that its analysis is not warranted given the limitations of their measure of self-concept of ability (1211). Yet this limitation does not inhibit their emphasis of this variable in their conclusions which argue for revisions in the basic Wisconsin model.

Turning to another piece of research clearly based on the Wisconsin model, in Is the Die Cast?, Anisef, Paasche, and Turrittin use 1973-79 data from a longitudinal study of former Ontario Grade 12 students in order to explore the linkage between education and work. They found that socioeconomic status is strongly related to program in high school, with those in the academic program being much more likely to have come from the higher socioeconomic status groups (1980:59). Occupational expectations in high school were also found to be related to post-secondary educational attainment. In general, females were less diverse in their occupational expectations than males (113-14). Anisef et al. also find that although socioeconomic status and other background factors are moderately related to the level of occupational beginnings, gender and education have a much stronger influence. The effect of socioeconomic status is mainly indirect through education.

The theoretical underpinnings of Anisef et al. (1980) are not apparent until they present their conclusion. They attempted to test whether education in Ontario fulfills the functions suggested by a meritocratic approach which sees education as part of an ideology supporting individualism, or the critical approach which views young people as entering the educational contest with unequal beginnings that do not provide an equal chance of success (1980:361). The authors insist that equality of educational opportunity must be considered a multidimensional concept (362). With this in mind, they conclude that despite educational reforms which expanded opportunity in terms of facilities, the role of ascriptive factors in educational and occupational attainment is still strong (363). They adopt a more critical approach than some status attainment researchers by suggesting that equality of educational opportunity cannot be achieved so long as there exists inequality of condition (363-381). Also, rather than blaming the individual or the educational system, Anisef et al. criticize the state and the economy for some of the current problems (377). They note that in the late 1960's, Porter and other social scientists clung to the meritocratic approach in the hopes that increasing equality of educational opportunity would also improve equality of condition. "Much subsequent research introduced a cynical note: the meritocracy or liberal approach to education --- the millions of dollars spent on creating excellent institutions of higher learning --- did not appear to overcome initial, socioeconomic differences among Canadians" (Anisef, Paasche, and Turrittin, 1980:381).

C. Shortcomings of Traditional Canadian Research and New Directions for the Future

As can be seen from the foregoing, the emphasis in the Canadian literature is clearly on status attainment approaches. Final attainment, whether in education or occupation, is the most commonly considered dependent variable. Nevertheless, aspirations are considered in many of these analyses, if not as a dependent variable, then as an intervening variable mediating the influence of origins on attainment. In the Canadian literature, these approaches also tend to emphasize educational aspirations and attainments, sometimes at the expense of occupational variables. However, this emphasis is not unjustified when we consider the prodigious amount of empirical work indicating that education is the main determinant of the level of status attainment. In addition, Breton (1972) indicates that educational intentions and occupational preferences may be regarded as indicators of the same phenomenon, the level of aspiration. He notes that several empirical and theoretical studies have treated them as interchangeable and that the data generally support such treatment (1972:229).

Both the Blau-Duncan and the Wisconsin approach lead to the same conclusions about Canadian society: inequalities are being reproduced by a system in which social class operates indirectly on education, and, as indicated by Anisef, Paasche and Turrittin (1980), this goes beyond the fault of the educational system and the individual, and into the larger society. When educational outcomes vary by social class, we have to ask whether or not the educational system is a reflection of the stratification which exists in the larger social system. In general, the Canadian neo-Marxist approaches have expanded the examination of education and class into this larger system (e.g. Livingstone, 1985; 1987). They also shift the focus from an emphasis on the distributive aspects of class to one on the relational aspects (Curtis and Scott, 1979:5). Nevertheless, the neo-Marxist alternative has not been applied to the study of the career aspirations of youth in Canada. Most of the Canadian research still has a status attainment orientation.

In ascertaining the heuristic value of the status attainment approach, one must consider the assumptions underlying it. Horan (1978) provides an excellent critique of status attainment models on these grounds. Unlike other critiques which argue that this approach is atheoretical, Horan argues that it is the theory-laden character of this approach which provides the real basis for its shortcomings (1978:534). Horan correctly notes that the status attainment representation of the occupational structure derives from a functionalist conception of social structure as a differential ranking of individuals. This focus on the status or the prestige dimension of occupations has led to an unidimensional conception of stratification which makes the results of status attainment research difficult to interpret in relation to other theoretical models (536-37). Horan argues that, following Davis and Moore (1945), status attainment researchers tend to view the process of stratification as one whereby individuals are recruited to positions by way of the differential distribution of rewards, and this tends to reinforce an individualistic, free-market conception of occupational placement (537).

Similarly, Crowder (1974) argues that a persistent ideological bias in functionalist theories of stratification has caused a conceptual error in all these theories. This bias is the assumption of a benign social system, agreeable to all, whereby individuals are placed in a hierarchical structure of positions with the rewards determined by society's needs (1974:19-20). Crowder argues that we must recognize that there are multiple normative orders and that "systemic power is unevenly distributed among persons and their respective institutions" (20). In general, Crowder is arguing that egalitarian notions present in functionalist stratification research fail to adequately deal with constraints present in the system. Knottnerus (1987) presents a similar concern, but argues that universalistic assumptions present in stratification research derive not only from functionalism, but from mass society theory which argued that postwar, industrialized society is becoming classless due to a growing middle strata.[11]

In any case, the neo-classical heritage of functionalist theory which assumes market homogeniety provides a source of justification for the focus in status attainment research on individual characteristics (Horan, 1978:538). Yet, Horan notes that this underlying assumption is unfounded empirically (537-39). It is a well documented fact that the market is not an open one. Therefore, the traditional status attainment models can only be considered structural analyses in so far as one accepts an invalid conception of the social structure. Status attainment models need to expand beyond their current focus and give proper attention to factors such as the structure of the labour market and historical developments which can alter the structure of opportunity (Knottnerus, 1987:119).

Horan points to neo-Marxist and dual economy (labour market segmentation) theories as promising alternatives to the status attainment approach (1978:539-40). Segmentation research of the sophisticated theoretical nature of that presented by

---

[11] However, Porter argues that this image of classlessness does not correspond to the realities in Canadian society (1965:3-6).

Schervish (1983) in the United States and Ashton (1986) in Britain, has only just begun to surface within the Canadian literature. Nevertheless, there is ample evidence that segmentation is a principle characteristic of the Canadian labour market (Clairmont, MacDonald and Wien, 1980; ECC, 1982; Shaw, 1985; ECC, 1987). Therefore, any comprehensive approach to the structure of inequality must consider this feature of the labour market. In addition, the neo-Marxist approach highlights the necessity of including the relational aspects of stratification in a status attainment paradigm (Kerckhoff, 1984:144). Recent refinements in statistical techniques have facilitated the ability of status attainment models to do so (Kerckhoff, 1984:146; Anisef et al., 1986:37).

Therefore, unlike Horan who sees neo-Marxist and segmentation approaches as alternatives to status attainment models, I would argue that there is greater utility in combining the insights of each into a more comprehensive model of status attainment. Kemper (1976) argues that stratification (as evidenced by the unequal distribution of rewards) in society is a result of both the functionalist notion of a rank order of contribution and the Marxist view regarding the employment of power. Thus, he argues that the empirical question should focus on how much of the variance in stratification is explained by each (1976:574).

Regardless of its faults, research in the status attainment tradition has provided a record of cumulative insights and its empirical findings have not yet been seriously challenged (Campbell, 1983:49). Yet the need to extend this model is recognized as extremely desirable (Campbell, 1983:50). Campbell indicates that while status attainment models provide a sophisticated answer to questions about the relative weights of ascription and achievement at a particular point in time, we must consider conditions (demographic, technical and economic) which can interact to change the level of opportunity (59). This need to consider structural variables (mainly the condition of the labour market) has intensified in recent years as Canada has experienced periods of economic downturn. As mentioned earlier, British researchers have already shown that economic recessions can upset the traditional relationships between social origins, education, and occupational attainment (Ashton and Maguire, 1986b). Whether or not this is true in the Canadian case requires further research.

Particularly, status attainment research could be improved by incorporating two main insights from other approaches. However, any attempt to do so must recognize that the theories are based on very different assumptions. Therefore, we must explicitly acknowledge the different starting points of each theory and attempt to resolve them if we are to work towards any coherent combination of these approaches. First, the critical orientation of neo-Marxist and reproduction theories alerts us to basic structural inequalities and differences in power that universalistic status attainment approaches ignore. Second, segmentation theories point to the consideration of labour market variables which are typically ignored in status attainment approaches. Schervish (1983) notes that status attainment research in sociology and human capital theory in economics have explained economic outcomes by focusing on supply-side characteristics, whereas segmentation research insists that the demand-side is also a necessary factor in the explanation of labour market outcomes (24). Some recent Canadian empirical work has begun to consider these factors.

The work of Harvey and associates has made the initial step towards the goal of integrating macro-level structural factors with the individual factors included in the status attainment models (Harvey and Charner, 1975; Marsden, Harvey and Charner, 1975; Harvey and Kalwa, 1983; Harvey, 1984; Blakely and Harvey, 1988). Harvey and Charner (1975) examine the changing relationship of post-secondary education to occupational attainment and mobility. Using 1970-71 data collected from three cohorts of male university graduates, Harvey and Charner follow the rationale of the status attainment models, but they tie in their results to labour market conditions. In conclusion, they argue that market feedback is changing the character of the demand for higher education (1975:148). In the comparable analysis for females, Marsden, Harvey and Charner (1975) found that although changes in the labour market for university graduates affected both males and females in similar ways, there were some important differences between the sexes. They find that overall, females experience less upward mobility than males, and that the labour market impact on both upward and downward mobility is less pronounced for females (1975:400-401). Marsden et al. argue that these differences stem from the fact that men and women compete in essentially different labour markets. In terms of occupational attainments, it was found that women had fewer paths at their disposal and had to prove themselves much more than men through visible achievements in order to arrive at the same ends (401-403).

In another analysis examining sex differences in the occupational status attainment of university graduates, Harvey and Kalwa assert that the findings of both their research and that of others supports the argument that the process of attainment is conditioned by the state of the labour market at any particular point in time (1983:439). Using data from five cohorts of university graduates who received degrees between 1960 and 1976, they found that men achieve higher occupational status than women do and also experience a wider distribution of status (444). Although the difference was statistically significant, it was substantively too small to interpret. However, their findings clearly show that the labour market effect (as measured by the unemployment rate) was negative and highly significant for both sexes and that this effect was stronger for men than it was for women (446-47). Harvey and Kalwa also find that socioeconomic background influences the status attainment of women but not of men (448).[12]

In another analysis using the same data as above, Harvey (1984) finds that for both males and females the instance of upward mobility is declining with changes in the labour market. In addition, the decreases in sex differences in upward mobility are the result of declining prospects for males and not from improved prospects for women (1984:279). In a more recent analysis, Blakely and Harvey move away from the exclusive concentration on university graduates to a more heterogeneous sample derived from the Canadian Mobility Study. In addition to the sample being more diverse, response rates also provide an improvement over the relatively low ones which were obtained in the analyses of Harvey and Kalwa (1983) and Harvey (1984). Like Harvey and Kalwa, these researchers recognize that the importance of first job on status attainment has been consistently demonstrated in the literature; therefore, time-specific elements of the labour market at the time of entry into first job could be a significant contextual feature in the process of status attainment (Blakely and Harvey, 1988:25). As the result of another analysis of the status attainment process, this time in relation to four labour market perspectives, Blakely and Harvey (1988:37) conclude that future theorizing and research should be directed at a synthesis between status attainment and labour market approaches.

---

[12] However, this last finding is questionable because they are dealing with a very select sample. By concentrating on university graduates, much of the effect of socioeconomic background on attainment is likely to be masked.

On a somewhat different note, Ornstein (1983) presents a neo-Marxist critique of status attainment and human capital models. Ornstein notes that while these models share some basic assumptions about the relationship of education, occupation, and income, status attainment models question the existence of inequality of opportunity in advanced capitalist societies, whereas the human capital school provides a defense of these inequalities by viewing income as a reward for investments in education and experience (1983:42-43). His main criticism of both models is that they neglect crucial variables which are important to income determination such as gender, race, labour market variables, and class. Ornstein begins his analysis with human capital and status attainment models and then adds in the effects of gender, class, economic sector and geographical location in order to make a comparison as to the utility of the tradtional approaches versus an expanded model. Using 1979 data from a national Canadian sample and and a measure of class operationalized by the scheme of Eric O. Wright, Ornstein finds large income differentials by class which cannot be attributed solely to differences in education and other variables (62). He also finds that the working-class receives lower returns to education than other classes (63).[13]

D. Summary and Hypotheses

Occupational goals have been approached from a number of theoretical orientations which are aimed at larger issues in the transition from school to work and the structure of inequality. Although a much more individualistic, social psychological approach to occupational goals exists, the concern here has been with sociological approaches which concentrate on structural factors. The main theoretical impetus in this

---

[13] Ornstein asserts that his model explains about 50 per cent of the variation in income as compared to about 15 per cent explained by status attainment models which do not consider the effect of gender, class, or labour market sector (1983:67). While Ornstein is correct in identifying the need to include other variables, the amount of explained variance in his model is somewhat misleading. The usage of class of the respondent (indexed, in part, by occupation) as a predictor of income accounts, in large part, for the high level of explained variance.

area has come from British and American work. Most of the British work is encompassed under the broad headings of reproduction theory and labour market segmentation theory. In contrast, the American work has concentrated on the status attainment theories of Blau and Duncan and the Wisconsin school, and more recently has started to consider neo-Marxist approaches.

The majority of the Canadian empirical work has been conducted within the American status attainment tradition. Both the Blau-Duncan and the Wisconsin theories lead to the same conclusion about Canadian society: the class structure is being reproduced by a system in which social class operates indirectly on education, which is the major determinant of later attainment. Those analyses which have included occupational goals have found that family background and school factors have a significant influence on these goals. In particular, sex, social class, and school program are related to the level of occupational aspirations. This is important when we consider that these occupational goals then have an influence on later attainments.

In general, the review of the Canadian literature indicates that the application of mainly American-based theoretical models to Canadian data has been successful in terms of lending support to these models. Similar results are obtained in both countries, but there has been some past evidence that Canada is more ascriptively oriented than the United States (Gilbert, 1977). Thus, although the process of status attainment may be the same for different groups, the relative strengths of the relationships tends to vary. However, Kerckhoff argues that it is inappropriate to try and interpret small differences across samples because of the confounding issue of measurement error (1984:146). This implies that we should be concentrating on tailoring status attainment models to particularly Canadian concerns rather than attempting to compare the relative weights of ascription and achievement across the two countries.[14]

In order to fully explore Canadian concerns such as regional inequality,[15] French-English differences, and ethnicity, future research needs to expand beyond its current concentration in central Canada. More nationwide data and data from other areas

---

[14] See Pineo (1976) for a comprehensive account of the distinctive elements and problems within Canadian society which affect Canadian approaches to stratification research.

[15] Forcese documents sources of regional inequalities which still exist within Canada (1986:37-43).

of the country are needed if we are to make any generalizations about the process of status attainment in Canada as a whole. More important however, is the need to address the criticisms of traditional status attainment models. It is argued here that this can best be done by an attempt to synthesize the insights of other theoretical approaches into a more complete model of the status attainment process. In particular, the status attainment model can be improved upon by a consideration of the critical orientation provided by the neo-Marxist and reproduction theories, and secondly by giving attention to labour market variables identified in labour market segmentation approaches.

If status attainment research is to develop beyond its present state, future research must acknowledge the role of demand as well as supply factors (Hunter, 1986:116). Blakely and Harvey note that the concept of 'markets' is relevant to the status attainment process "insofar as changes in labour supply-demand imbalances over time: 1) alter the relationship between these status determinants and status outcomes; and 2) differentially affect the relationship between status determinants and status outcomes for different groups" (1988:25). This implies that the inclusion of demand-side labour market variables may also facilitate a more critical assessment of the attainment process. If macro-level structural factors on the demand-side are found to place constraints on the achievements of some groups moreso than others, then we must question the commonly held view of Canada as an open, achievement oriented system.

The work of Harvey and associates and Ornstein has been exemplary in forging the way to a new, more comprehensive approach to status attainment research. Nevertheless, whether or not career goals themselves are influenced by demand factors in the labour market is still a neglected issue. When we consider the relative importance of aspirations in the attainment process, it becomes apparent that we cannot afford to ignore this issue any longer. The following analysis presents an initial attempt to explore this area with Canadian data.

As was seen in the foregoing review, the status attainment model has provided the most common framework for the study of career aspirations in Canada. In addition, the cumulative record of findings from this model has not been seriously challenged. Therefore, the status attainment model was chosen as the starting point for the present study of the career goals of youth. However, it was also recognized that there were serious shortcomings to the traditional status attainment approach, the most crucial being the failure to consider demand factors in the labour market.

While this shortcoming may not have been so serious in times of economic prosperity, initial research suggests that in a recessionary market it represents a real failure of the model to adequately explain the attainment process. Since the data from this study were collected in a recession characterized by high youth unemployment rates, it became clear that a traditional status attainment model would not provide a comprehensive theoretical framework within which to study the career aspirations of these youth.

In fact, the influence of the recessionary market on the career goals of these youth was of crucial interest in the present study. In particular, the main hypothesis argues that the career goals of youth will be negatively influenced by negative work/career related experiences after high school. Secondly, it was hypothesized that this effect would be stronger for those who have entered the labour force on a full-time basis than it would be for those who have continued their education, simply because one would expect the labour market to have its greatest impact on those who have fully committed to it.

These hypotheses incorporate the influence of labour market demand factors into questions about a traditional status attainment variable, namely, career aspirations. By addressing these questions, this thesis represents an initial attempt to improve upon the traditional status attainment model by the inclusion of demand factors in the labour market. It is argued here that work in this direction will facilitate a more critical view of the attainment process by identifying differential opportunity structures which will serve to challenge our view of an open, meritocratic society. This thesis attempts to take the initial step in this direction by demonstrating that demand factors in the labour market can be successfully incorporated into status attainment models. This is done by assessing the influence of negative labour market experiences on the career goals of Edmonton youth with a high school education.

III. Data and Methods

This chapter describes the data used in this study, and outlines the methodology used to explore the research questions. As stated earlier, this thesis seeks to add the effects of demand factors in the labour market to status attainment approaches to career aspirations. In particular it asks whether or not the career goals of youth are being modified as a result of initial work/career related experiences after high school. Since the data being used were collected in a recession characterized by high youth unemployment rates, the main concern of this research was on the effect of negative work/career experiences. As a result the following hypotheses were developed:

1) Career aspirations of youth will be negatively influenced by negative work/career related experiences after high school.

2) This effect will be stronger for those who have entered the labour force on a full-time basis than it will be for those who have continued their education.

A. Data

The data used in this thesis come from the Youth Employment Study, conducted by Professors T. Hartnagel, H. Krahn and G. Lowe at the University of Alberta. The project is a longitudinal study of high school and university youth in three Canadian cities. The data were collected annually over the three year period from May, 1985 to May, 1987. Edmonton, Toronto and Sudbury were the three research sites, chosen because of major differences in their local economies (Krahn, 1988:2). The study which was originally designed to focus on the causes and consequences of youth unemployment slowly broadened its emphasis to the "transition from school to work" (Krahn, 1988:1-2).

The present research examines only the high school portion of the Edmonton sample. Although two major follow-up surveys were conducted, only the data from the original survey (Time One, 1985) and the first follow-up (Time Two, 1986) are analyzed. These data were particularly useful for the examination of the present research questions for two main reasons. First, measures included in the Youth Employment Study allowed examination of some of the traditional status attainment variables as well as the effect of variables which represent demand factors in the labour market. The state of the economy at the time of the study provided greater variation in initial work / career experience than would have been found with data collected in times of prosperity.

Second, the longitudinal nature of the data allowed exploration of questions not possible with single time period or cross-sectional designs, specifically, changes in aspirations. Rather than simply looking for a correlation between negative career experiences and low aspirations, we can look for a negative *change* in career aspirations following negative labour market experience. Thus, we are closer to satisfying one of the conditions for causality, that the cause must precede the effect.

The data were obtained through strategic sampling with the high school serving as the primary sampling unit.[14] Six public high schools in Edmonton were selected to provide a diverse mix of school programs and student backgrounds (Krahn, 1988:5). Self-administered questionnaires were distributed in classrooms by members of the research team. Almost all students in attendence completed the questionnaire. The Time One questionnaire was pretested with 48 students in two classrooms in one of the selected schools in April of 1985. Because few changes in the questionnaire resulted, this pretest group was kept as part of the sample. The remaining data were collected in the five other selected schools in May and June of 1985. Classes, like schools, were selected to provide a diverse mix of programs and students.

In total, 983 students from 66 classes responded to the Time One high school questionnaire. Data collected from this stage of the study provided information on the career aspirations and expectations of students in the final year of high school, along with demographic and background information. At this time, students were also asked for their name, address and phone number for follow-up purposes. Only 89 students failed to give this information. The remaining 894 respondents were kept on the mailing list for the Time Two survey.

The Time Two survey, conducted by mail in May of 1986, used a four-stage data collection strategy: initial questionnaire package; follow-up reminder letter; second questionnaire package; and, telephone contact with an offer to mail a third questionnaire package (Krahn, 1988:10). The Time Two survey reassessed the career aspirations and expectations of these youth and gathered additional information on their work, further education, and other experiences in the preceding year.

---

[14] It was not possible to obtain a random sample of graduating high school students because access to all schools and classrooms was not provided (Krahn, 1988:5).

Sample attrition resulted in a reduced Time Two sample of 665 youth. Because the major question in this research is whether or not a change in career goals occurred between Time One and Time Two, the sample used here is limited to the 665 respondents who replied to both questionnaires. This response rate represents 68% of the total Time One sample or 74% of those Time One respondents who gave follow-up information signifying their willingness to participate in the panel study. Although these rates are fairly high for a mail-out survey, the data still warrant examination for possible biases which may have resulted from sample attrition.

A thorough analysis of possible sources of bias due to sample attrition was conducted by one of the members of the original research team (Krahn, 1988:11-17,52,53). This analysis covered the entire sample (Years 1-3; Edmonton, Toronto and Sudbury; high school and university) and proceeded by comparing those individuals who remained in the study through to Time Three with those who dropped out sometime after the first survey. Looking only at the Edmonton high school sample, crosstabular analysis found significant differences in three basic areas between those who dropped out of the survey and those who remained (Krahn, 1988:11-14,52). First, more females than males remained in the study. Second, more school-oriented youth (those in academic programs; those with higher grades; and those who planned to continue their education) were more likely to remain in the study. Finally, those who did not have a paying job while in high school were more likely to remain in the study. These sources of bias should be kept in mind when considering the results of the analyses presented in the following chapters. Separate analyses by sex are presented in some sections of the thesis in order to take into account the differential survival rates for males and females, as well as to explore possible sex differences.

B. Measurement

The operationalization of the main variables in the study deserves some comment before proceeding to the methods of analysis. The measurement of career goals deserves fairly detailed consideration, since they are the dependent variable in this study.

Two items in the questionnaire were designed to measure career goals: "What kind of job or career do you want eventually?" and "What kind of job or career do you really expect to have eventually?". The two items, which were placed together in the questionnaire, were intended to measure two separate aspects of career goals, namely, aspirations and expectations. In contrast to Haller (1968) who asserts that aspirations should refer to one's own goals, and expectations to the goals that other's have for you, aspirations are here defined as one's preferred or idealistic goals, whereas expectations refer to one's realistic goals.

While we can logically distinguish between these two concepts, young people may not do so when asked about their future career. As Porter, Porter and Blishen (1982) note:

> "When in response to a question a student specifies his [sic] occupational ambitions (or aspirations), he is not making a choice of an occupation in the same way that he will when he enters the labour force or when he chooses a particular post-secondary educational program that leads to a professional career. A student's occupational ambition is an indication of a preference rather than an actual choice" (95).

In other words, a young student asked about his or her aspirations and expectations may simply be providing the same occupational preference in response to both questions.

The existing research varies in the amount of difference found between self-reported aspirations and expectations. Some researchers have found only slight differences (Breton, 1972; Brinkerhoff and Corry, 1976), whereas others have noted that idealistic goals are substantially higher than realistic goals (Haller, Otto, Meier and Ohlendorf, 1974; Crysdale, 1975). Smith found that approximately two-thirds of her high school sample were relatively consistent in the level of aspirations and expectations that they held (1980:176-177). In another study of Canadian high school youth, Porter, Porter and Blishen found that approximately one-half of their sample had expectations that matched their aspirations (1982:98). Despite these variations, researchers have found that aspirations and expectations are influenced by structural factors such as social class in a similar manner (Rehberg, 1967; Brinkerhoff and Corry, 1976:271).

Aspirations and expectations were very highly correlated in this study (.85 in Time One, .93 in Time Two), indicating that they were probably measuring the same thing. In fact, considering only those respondents who were able to give a specific occupation for both the aspiration and expectation questions, 81.1% in Time One and 85.1% in Time Two listed exactly the same occupation for both questions. Hence, it was decided that only one measure would be used. Aspirations was selected as the measure of career goals because a larger number of respondents had answered this question.[17] Throughout the thesis, the terms career goals and career aspirations will be used interchangeably.

Having chosen aspirations as our measure of career goals, we still need a method of translating these goals into rankings. Following the example of other researchers, this was accomplished by the use of a socioeconomic index (e.g. Blishen, 1967; Blishen and McRoberts, 1976; Pineo, Porter and McRoberts, 1977; Blishen and Carroll, 1978; Pineo, 1985; Blishen, Carroll and Moore, 1987).

The particular index used here was developed and modified by Blishen, Carroll and Moore (1987) for the classification of 1981 Canadian census occupational codes. In order to address criticisms about the validity of occupational prestige scores and the male bias in most socioeconomic indices, Blishen, Carroll and Moore (1987) used a methodological strategy which minimized the role of prestige scores and took into account characteristics of the *entire* employed labour force (median income and educational levels of each occupation, along with information about the gender composition of each occupation).[18] When the index is applied, the 514 Census occupations have a mean of 42.74, a standard deviation of 13.28, a minimum of 17.81, and a maximum of 101.74 (Blishen, Carroll and Moore, 1987:470).[19]

Turning to the measurement of the main independent variable, negative labour market experience, there are fewer complicating issues to address. Unemployment was selected as the clearest measure of negative labour market experience. The official definition of unemployed is "out of work and looking for a job but unable to find one". Since this definition was explicitly stated in the questionnaire, the validity of the measure of unemployment experiences in the year between the Time One and Time Two surveys is likely to be high.

---

[17] In Time One there were 86 missing cases for aspirations as compared to 151 for expectations. In Time Two there were 183 missing cases for aspirations and 225 for expectations.

[18] For a more detailed description of the construction of the index, refer to Blishen, Carroll and Moore (1987:469-470).

[19] The use of the Blishen scale to operationalize occupational goals is not without faults however. Stewart, Prandy and Blackburn (1980) react against the use of occupation as a measure of either status position or class, arguing that it is an inaccurate determinant of inequality because people move in and out of occupations during their lifelong career. However, the cautions of Stewart, Prandy and Blackburn are more applicable to the measurement of occupational outcomes than they are to aspirations. In addition, the measurement of occupational aspirations in the present manner allows comparability with previous status attainment research.

This measure of labour market success or failure reflected sufficient variation in the sample, since a full one-third of these youth had experienced unemployment at some time during the preceding year. The experience of unemployment was operationalized with a dichotomous dummy variable. Those who had not been unemployed were coded "0", while those who had experienced unemployment in the past year were coded "1". Although both an interval measure of length of time unemployed and the dichotomous measure were experimented with in an initial analysis, the dichotomous measure was chosen for the final analysis because the interval measure of length of time unemployed was too highly skewed, rendering it inappropriate for use in a regression model.

In most cases, the other variables used in the analysis are clear in their operationalization (i.e. sex), or they are discussed in the sections dealing with them. Therefore, the remaining discussion is brief and is limited to the variables introduced in the first section of analysis. These include: self-concept at Time One, mother's education, father's education, mother's occupation, father's occupation, academic performance and school program.

Self-concept at Time One is operationalized by an index which combines six measures of self-concept into a single scale with high reliability (Alpha=.75).[10] Mother's education and father's education are both measured by the student's report of each parent's highest level of schooling. The answers range from a value of "0" for no schooling to a value of "6" for university graduates. Mother's occupation and father's occupation are also measured by the student's report of each parent's occupation. These answers were coded into 4-digit codes from Statistics Canada's Standard Occupational Classification 1980 (1981), and then transformed into Blishen scores using the same index employed for aspirations (Blishen, Carroll and Moore, 1987).

---

[10] The six individual items used in forming this index are taken from the Rosenberg self-esteem scale (Rosenberg, 1979:291).

Academic performance is measured by the students' self-report of their grades in the past school year. The answers were coded on a five-point scale which ranged from "1" for grades 80% and above, to "5" for grades under 50%. For use in this analysis, the coding was reversed so that "1" corresponded to the lowest grades and "5" to the highest grades. Finally, school program was recoded into a dichotomous dummy variable with non-academic programs being coded as "0", and academic programs being coded as "1".[21]

C. Analysis

In order to explore the research question as fully as possible and to compare the present data with the results of existing research, the data analysis proceeds in four distinct stages. The first set of analyses, presented in Chapter Four, begins with a simple descriptive look at the career goals of youth as they prepare to leave high school. Following this, career goals are analyzed in the framework of a traditional status attainment model. To allow comparability with earlier research, this is done by estimating a path model with multiple regression equations. Although the data are not from a random sample, significance tests are used as guidelines for identifying more important relationships.

The second section of analysis, presented in Chapter Five, involves a descriptive look at the initial experiences of youth during the first year following high school (Time Two). This section addresses questions such as the following: Did the respondents' plans while in high school correspond to what they were doing at Time Two? What percentage of the respondents continued on to further education? What percentage of respondents were working? What percentage were unemployed? Answers to questions such as these provide a general, overall look at the variation in the initial post-high school experiences of the sample.

After this preliminary analysis is complete, we begin to address the main research question. In order to do this, we must first determine whether or not there has been any change in goals between Time One and Time Two for the youth in our sample.

---

[21] Other less central variables, and other data transformations, are discussed when they are introduced in subsequent sections.

This task is addressed in Chapter Six. The results of this section of analysis indicated that there was indeed a change in career goals for a substantial portion of the sample.

In the fourth and final section of analysis (Chapter Seven), the change in career aspirations is examined in the framework of an extended status attainment model. The choice of methods for this section required careful consideration since the analysis here deals with panel data. Other researchers (e.g. Smith, 1980) have used simple difference scores to assess change over time. However, this approach is methodologically incorrect. Any change in career goals is a function of the level of goals at Time One. For example, someone who had the lowest level of goals at Time One cannot decrease his/her goals at Time Two. Therefore, the use of difference scores cannot distinguish regression towards the mean from any real change due to the influence of the independent variable. Thus, it is necessary to employ a method of analysis which controls for the level of aspirations at Time One.

The method chosen used multiple regression equations to examine the influence of negative labour market experience (unemployment) on Time Two career goals, while controlling for the level of goals at Time One. This is done by using career goals at Time One as an independent variable in the equation predicting the level of goals at Time Two. The results of these equations would be sufficient to explore the research question. However, the analysis was carried one step further to allow comparability with earlier research. The results of the multiple regression equations were used to diagram an extended status attainment path model to show how earlier models could be improved. This approach demonstrates that demand factors in the labour market can be incorporated into status attainment approaches to the study of career aspirations.

IV. Level of Goals at Time One

The main hypothesis of this thesis proposes that the career goals of Edmonton youth will be modified as a result of initial work/career related experience after high school. This chapter presents the first stage of analysis in which the overall level of career goals at Time One is examined in the context of earlier research on status attainment.[22]

A. Realistic or Unrealistic Career Goals?

Before examining occupational aspirations in a replication of standard status attainment models, it is useful to take a brief descriptive look at the overall level of aspirations. It is hypothesized on the basis of previous research (Baker, 1985), that youth at this age will aim unrealistically high. For example, Fottler and Bain found unrealistically high occupational choices in their sample of Alabama youth (1984:241-42). When these researchers further subdivided professional and managerial aspirations into specific occupations, they found that the status aspirations bore no resemblance to the availability of positions in the labour market (242). They concluded that "it appears that the structure of labour demand in the U.S. labour market will not support the levels of aspirations .... into the foreseeable future" (243).

Table 4.1 compares the aspirations of the youth in this study with the actual 1981 distribution of the Canadian labour force.[23] Our hypothesis is supported, since higher status jobs are overrepresented in the goals of these students and lower status jobs are underrepresented. Without any precise knowledge of the projected levels of demand in the Canadian labour market, the comparisons in Table 4.1 still indicate that it is unlikely that the overall level of aspirations of these youth will be met in the labour market.[24] A full 69.5% of the sample are aiming for jobs at the middle management level

---

[22] Only the youth who gave a specific occupational goal in Time One are analyzed in this chapter. This reduces the sample size of N=665 to N=579. An analysis of missing data on occupational goals is presented in Chapter Six. In general, it was found that those who had failed to identify specific goals did not differ in any systematic way from those who provided this information.

[23] While 1986 census data on occupations are available, there has not yet been any translation of these data into Pineo categories or other scales which rank these occupations in terms of status.

[24] Krahn and Lowe (1988:62-63) discuss some predictions of which Canadian occupations are expected to contribute the most to employment growth up to

---

TABLE 4.1 Occupational Aspirations of 1985 Edmonton High School Students, and Occupations Held in the 1981 Canadian Labour Force.

Occupational Category *	% of Students Aspirations	1981 % of the Labour Force **
Self-Employed Professionals	11.6%	0.8%
Employed Professionals	24.7%	7.7%
High-level Management	1.6%	3.9%
Semi-Professionals	19.3%	5.6%
Technicians	5.4%	1.8%
Middle Management	6.9%	3.9%
Supervisors	2.8%	3.3%
Foremen	0.2%	3.3%
Skilled Clerical-Sales-Service	5.9%	10.6%
Skilled Crafts and Trades	9.3%	11.3%
Farmers	0.2%	0.2%
Semi-Skilled Clerical-Sales-Service	7.6%	16.9%
Semi-Skilled Manual	2.2%	11.3%
Unskilled Clerical-Sales-Service	1.6%	4.3%
Unskilled Manual	0.5%	13.7%
Farm Labourers	0.3%	1.3%

---

* Occupational categories are from Pineo (1985).

** The 1981 Percentage distribution of the Canadian labour force was taken from Table 3.4 in Canadian Society: A Macro Analysis (Hiller,1986:80).

and above. However, only 23.7% of jobs in the Canadian labour force are at this level. If we consider only professional level jobs, it can be seen that while only 8.5% of the jobs in the actual labour force fit this category, 36.3% of the youth are aiming for them. In contrast, while 13.7% of the jobs in the labour force are in the unskilled manual category, only 0.5% of the youth select these occupations as their job choice. Although many of these youth went on to post-secondary education, making higher goals more reasonable, comparisons such as these indicate that a large proportion of youth will not realize their occupational goals. The overall level of the occupational aspirations of these youth are unrealistically high when the actual structure of the labour market is considered.

Fottler and Bain list four possible explanations for the unrealistic occupational aspirations of high school students (1984:243-44). First, reference group theory suggests that youth who are exposed to admirable individuals in particular occupations may be influenced by them in their own aspirations. This phenomenon includes the influence of the mass media which tends to focus on the higher status occupations. Second, students lack adequate occupational information. Third, initial unrealistic goals may be part of an adaptive process of occupational choice, where choices are modified as new information is received. Finally, Fottler and Bain (1984) suggest that students may not really be aiming this high; there might be measurement error due to students selecting socially desirable occupations instead of reporting their true aspirations.

All of these explanations are likely to contribute to the high level of aspirations of high school youth. However, the most important reason for unrealistic aspirations may well be a lack of information. Until youth actually enter the labour force on a full-time committed basis, it is unlikely that they will be aware of the demands of the labour market. It is reasonable to assume that a certain period of trial and error experience within the labour market is required in order for labour market participants to acquire adequate knowledge with which to form realistic goals. This relates to the third explanation for unrealistic goals identified by Fottler and Bain: initial unrealistic choice is part of an adaptive process of occupational choice in which choices are modified as new information is received. While agreeing that occupational choice is a

---

[24](cont'd) the year 1995. Most of the growth is expected in service sector jobs, not in the high status occupations most of these youth are aiming for.

process in which goals are modified, it is argued here that the original high level of goals is not a necessary step in the process of career choice itself, but rather a consequence of inadequate information due to lack of experience.

B. Replication of Status Attainment Models

In this chapter, we determine whether or not the Time One career aspirations of Edmonton high school students can be explained by a standard status attainment model. If they can, this will provide justification for using a revised status attainment paradigm to examine change in goals over time in the final phase of the analysis. While not attempting a complete replication, we present a general Wisconsin model with variables available in this data set. Thus, some standard independent and intervening variables (notably mental ability and significant other's influence) are excluded because they are not available with the current data.

The Wisconsin model is better understood as a number of closely related models. The variability of this approach to explaining occupational goals is apparent in the literature (Sewell, Haller and Portes, 1969; Sewell and Hauser, 1972; Alexander, Eckland and Griffin, 1975; Gilbert, 1977; MacKinnon and Anisef, 1979; Looker and Pineo, 1983). Nevertheless, there remains a fairly high degree of consistency in the general causal ordering and in the variables selected for consideration. Most Wisconsin-type models include the following variables in their examination of occupational aspirations: background socioeconomic status (either a composite measure of SES or several individual indicators such as mother's education, father's education, mother's occupation, father's occupation and parental income), mental ability or academic aptitude, academic performance (grades) and/or school program, significant other's influence (one or several indicators), and more recently, self-concept of ability.[25]

Following from this, seven indicators were originally selected to examine career aspirations at Time One. They included mother's occupation, father's occupation, mother's education, father's education, self-concept, school performance (grades) and a dummy variable for sex.[26] This initial model consisted of the four family background measures as exogenous variables, academic performance and self-concept as intervening endogenous variables, and occupational aspirations as the final dependent variable. There are differences in the literature relating to the causal ordering of academic performance and self-concept, with some viewing academic performance as preceding self-concept, others viewing the reverse ordering as correct, and still others placing them at the same point in time (Gilbert, 1977; Gilbert and McRoberts, 1977; MacKinnon and Anisef, 1979; Porter, Porter and Blishen, 1982; Looker and Pineo, 1983). Nevertheless, the question of correct causal ordering was simplified in the present case due to the wording of the questions that measured these variables. Respondents were asked to give self-reported grades for the *past* school year as a measure of academic performance, whereas the self-concept questions had a present frame of reference. Therefore, academic performance preceded self-concept in the model tested here.

---

[25] Gottfredson has suggested that self-concept provides a means of integrating structural and process approaches in the study of occupational goals (1981:546). She views factors such as social class and gender as determinants of both self-concept and the types of compromises people make in their occupational choices.

The model was run several times in order to test a number of variations of the basic model. This was done to deal with difficulties presented by the use of mother's occupation, and to check for both additive and interaction effects with gender. The use of mother's occupation presents problems because of the large amount of missing data (N=173). This results mainly from the inability of the Blishen scale of occupational status to deal with the response 'housewife'.[27] Therefore, the model was run repeatedly with mother's occupation excluded, mother's occupation included, with a dummy variable for full-time working mothers versus all others, and with a dummy variable for mothers with high status occupations[28] versus all others. These four variations were repeated twice;

---

[26] Most status attainment studies do not include a dummy variable for sex. Instead the common practice has been to run the model separately for males and females if both sexes were included in the sample. In this section, both methods will be tested. Running the model with the total sample using a dummy variable for sex will identify any additive effects for gender, whereas running the two sexes separately will identify any interactions with gender. Once the results of both methods are examined, the most appropriate way to proceed with further analysis can be ascertained.

[27] This difficulty in analyzing the occupational status of women has been noted by other researchers as well (e.g. McCartin and Meyer, 1988:384).

[28] Mothers with high status occupations were considered to be those who held jobs in the top seven categories of the Pineo scale. These jobs range from

first with a dummy variable for sex, and second with the sample split by sex so that separate models were generated for males and females.

None of the variations tested identified any influence of mother's occupation, or served to alter the basic pattern of results. In fact, the model as a whole proved to be unsuccessful in explaining the occupational aspirations of these youth. Only four significant paths were identified. First, analyses with the dummy variable for sex indicated that boys had higher self-concepts than did girls. Second, mother's education positively influenced self-concept for both boys and girls. Third, academic performance positively influenced the self-concept of females; and fourth, academic performance positively influenced the occupational aspirations of boys. With the exception of the latter path, the model showed no direct effects on occupational aspirations.

Three possible reasons for the failure of this model to explain occupational aspirations were identified. First, the measure of self-concept used here refers to general self-concept. This differs from self-concept of ability which is the measure used in the literature (Gilbert, 1977; Gilbert and McRoberts, 1977; MacKinnon and Anisef, 1979; Porter, Porter and Blishen, 1982; Looker and Pineo, 1983). Self-concept of ability pertains specifically to the respondent's belief in his/her ability to succeed academically, which is different from a measure of the respondent's broader overall self-concept.

Second, it was obvious that relevant variables were excluded from the model. Although mental ability and significant other's influence were not available with these data, school program was available and should have been included since other researchers have found it to be an important intervening variable in path models which predict goals (Gilbert, 1977; Gilbert and McRoberts, 1977). In addition, a general overall finding of the status attainment literature is that social class background effects operate indirectly on attainments through their influence on educational attainment. Since we are dealing with only a partial model (up to aspirations) with a sample consisting entirely of those in their final year of high school, school program offers a way of capturing the effects of social class background on education. Program can be seen as a streaming device through which position in the class hierarchy is reproduced via training, abilities

---

[21](cont'd) supervisors to self-employed professionals.

and aspirations (Gilbert and McRoberts, 1977:36). Thirdly, it is possible that the four highly related family background measures are causing problems within the model. This possibility is discussed later; first the results of a second revised model are described.

The second model was laid out in the same manner as the first, except that school program now replaced self-concept as one of the two intervening variables. Other researchers have placed academic achievement prior to school program, arguing that a rational system would sort students into programs on the basis of performance (Gilbert, 1977:291-92; Gilbert and McRoberts, 1977:42). However, the reverse ordering is used here due to the fact that the sample consists only of students in their final year of high school. School program would have been selected prior to the commencement of the final year, whereas the self-reported grades referred to the past year in school. Therefore, academic performance must follow school program in the present model.

As before, variations of this model were examined with mother's occupation excluded, mother's occupation included, with a dummy variable for full-time working mothers versus all others, and with a dummy variable for mother's with high status occupations versus all others. As with the prior model, these variations were run, both with a dummy variable for sex, and with the sample split by sex. The results obtained with this model were much more successful. The models for the total sample, with a dummy variable for sex, explained between 16.2% and 18.6% of the variation in career goals. When the sample was split by sex, between 12.5% and 13.3% of the variation was explained for females and between 25.1% and 28.1% for males.

In addition to explaining a larger portion of the variation in occupational aspirations, two things became apparent from the test of the second model. First, this model works differently for males and females, strongly suggesting statistical interaction. Second, the different variations of the model (based on different ways of dealing with mother's occupation) did not lead to any substantial change in the pattern of results. No matter how we treated mother's occupation, the results were very similar. The analysis which used mother's occupation in Blishen scores, despite all its missing data, yielded the worst results. The runs using the other treatments of mother's occupation and the run which excluded mother's occupation yielded almost identical results, with less than 1.0% shifts in the explained variation. As a result, it was decided to proceed with mother's occupation excluded from the analysis. This decision was further supported by the fact that there were no significant or near significant paths from mother's occupation (in any form) to any of the other variables in the model. Most of the effect of family background was via parents' education, although in two of the analyses the effect of fathers' occupation on academic performance approached significance (standardized path coefficients of .165 and .168; p=.07 and p=.08 respectively).

As a result of these two factors, further analysis which sought to refine the model proceeded without the use of mother's occupation and continued to test the model split by sex. Formal tests of interaction were delayed until the model was refined further. The refinement done at this stage was basically an attempt to deal with the problem of multicollinearity involving the three remaining exogeneous variables.[29] The correlation coefficients among father's occupation, mother's education, and father's education are .428, .540 and .636 for the 461 cases for which complete data were available. Although these correlations are not extremely high, it is worthwhile to check for possible multicollinearity effects.

The first check consisited of entering these three independent variables in the regression equations on different steps. Substantial fluctuation in the partial regression coefficients and the standard errors of the slopes when variables are sequentially introduced into the model would be evidence of multicollinearity. Beyond minor fluctuations, no such evidence was found. A second check for multicollinearity was done by regressing the set of independent variables on each other. The amount of shared variance obtained in such a test measures the degree to which there is linear dependence among the independent variables. The highest value obtained from this test was .51, which occurred when the set of indendendents was regressed on father's education. Although this is a moderately large value, with a sample size of 461 it should not be high enough to radically alter the standard errors.

---

[29] Multicollinearity refers to a situation where there are fairly strong intercorrelations among the independent variables. This can lead to high standard errors for the slopes in regression equations, which means that in any particular sample, estimates may be substantially different from the true parameter.

Although these two tests did not indicate any serious multicollinearity problems, the pattern of results obtained in the model hinted at their presence. For females, only father's education significantly influenced school program, yet there are relatively small differences in the bivariate correlations between mother's education and school program (.23) and father's education and school program (.28). Similarly, for males only mother's education influenced school program significantly in spite of almost no differences in the bivariate correlations between father's occupation and school program (.26), mother's education and school program (.27) and father's education and school program (.28). These cross-sex patterns which appear are most likely due to the effects of multicollinearity. Relatively small differences in bivariate correlations with the dependent variable can yield relatively substantial differences in partial correlations when the independent variables are highly correlated because the partial correlations also have high standard errors when multicollinearity exists (Agresti and Finlay, 1986:381). This can result in erroneous conclusions that one relationship is much stronger than another, when they are actually the same in the population. Therefore, it would be inappropriate to conclude that girls are influenced only by father's education and boys only by mother's education.

As can be seen from the above, the inclusion of three highly related indicators in the model can lead to confusing results and possibly erroneous conclusions. Therefore, it was decided to combine the three remaining family background indicators into an index of socioeconomic status.[30] The creation of this composite measure serves two purposes. First, it eliminates any problems of multicollinearity. Second, it represents a simpler, more parsimonious presentation of the model. In addition, the use of a composite index measure of socioeconomic status is a common practice in the literature (Sewell, Haller and Portes, 1969; Alexander and Eckland, 1974; MacKinnon and Anisef, 1979), and does not violate the theoretical assumptions of the status attainment approach.

---

[30] The index of socioeconomic status was formed by computing an average based on the standardized (z-score) versions of mother's education, father's education and father's occupation. Standardized versions of the variables were used in the index in order to insure that all three variables were weighted equally and were not influenced by their variations. The reliability coefficient for this standardized index is alpha=.78.

Although the test of the previous model indicated that it would be more appropriate to run the model separately for males and females, the model was tested first with the total sample in order to have a basis for comparison. The results of this model are presented in Figure 4.1.[31] As can be seen, sex and socioeconomic status are exogenous variables, school program and academic performance are intervening endogenous variables, and occupational aspirations are the final dependent variable. Four significant paths resulted from this model which explained 18.4% of the variation in occupational aspirations. Socioeconomic status background influences school program (.296) which in turn influences academic performance (.143) and occupational aspirations (.304). Academic performance has a direct effect on occupational aspirations (.214) which also represents its total effect since it does not act through any other variables. In the case of school program, a small indirect effect of .031, representing the influence of school program on academic performance, is added to the direct effect to get a total effect of .335 for school program. Thus, all but an inconsequential amount of the effect of school program on aspirations is direct. In contrast, all of the influence of socioeconomic status is indirect (.118), mainly through its influence on school program.

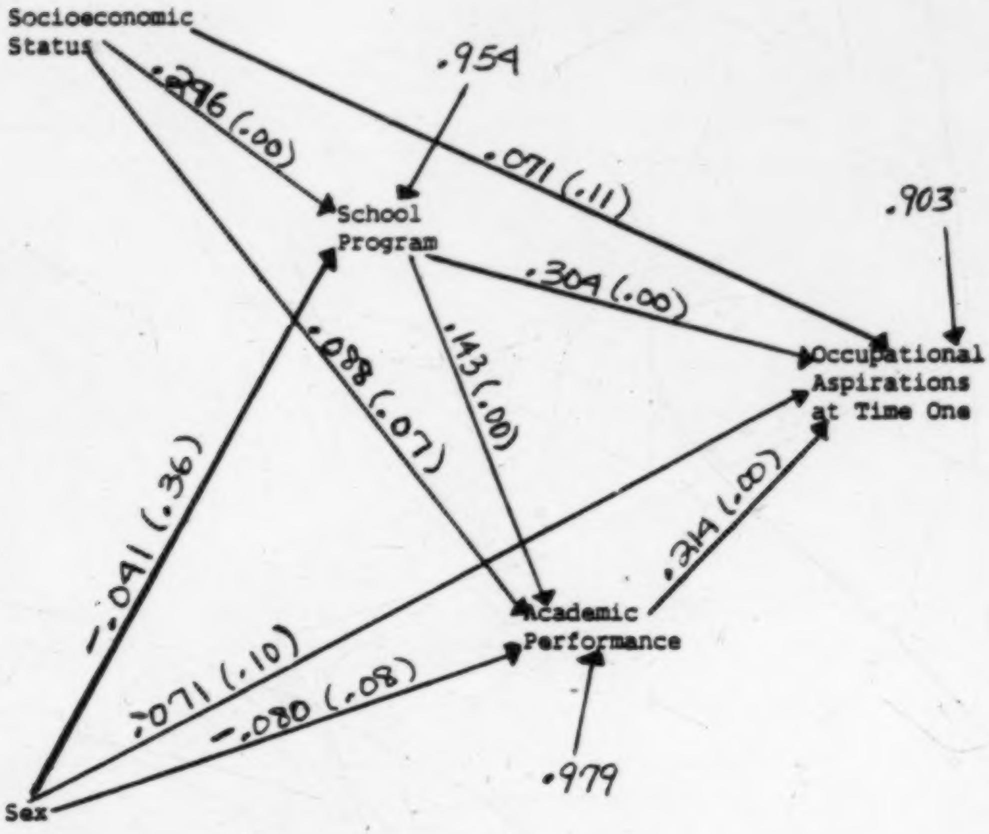
Considering that only three variables are having a significant influence on occupational aspirations, the amount of explained variance is a fair indication that the model is a useful summary of the occupational aspiration process. Nevertheless, it is surprising that gender is not having an additive effect on aspirations. Other researchers have found that sex differences in the level of aspirations of males and females still exist, although this has declined in recent years (e.g. Garrison, 1979; Herzog, 1982; Baker, 1985; Gerstein, Lichtman and Barokas, 1988). To test for the possibility of interaction effects the basic model was run separately for girls and boys. The results of this test are presented in Figures 4.2 and 4.3.

As can be seen from Figure 4.2, the model explains only 12.0% of the variation in the occupational aspirations of females. Only two significant paths were identified. Socioeconomic status influences school program (.263), which directly influences occupational aspirations (.309). As in the previous model which reported the results for the entire sample, the influence of socioeconomic status on occupational aspirations is

---

[31] Standardized coefficients (beta) are used in the path models presented throughout the thesis.

FIGURE 4.1 Path Model of Occupational Aspirations at Time One with a Dummy Variable for Sex*


Socioeconomic Status
.954
.296 (.00)
.071 (.11)
School Program
.903
.304 (.00)
Occupational Aspirations at Time One
.088 (.07)
.143 (.00)
-.091 (.36)
.314 (.00)
Academic Performance
-.071 (.10)
-.080 (.08)
.979
Sex

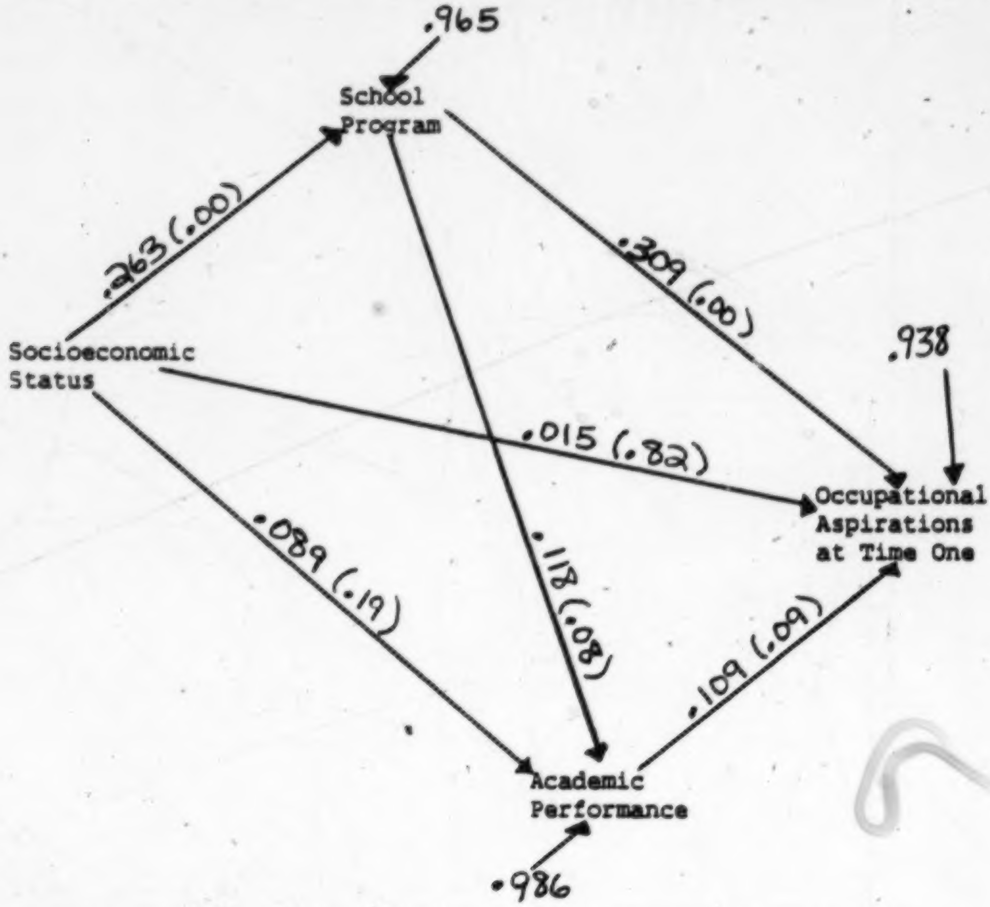
---

* The dummy variable for sex was coded by assigning females a value of "0" and males a value of "1".

( )Significance level.

This model explains 18.4% of the variance in occupational aspirations at Time One (N=461).

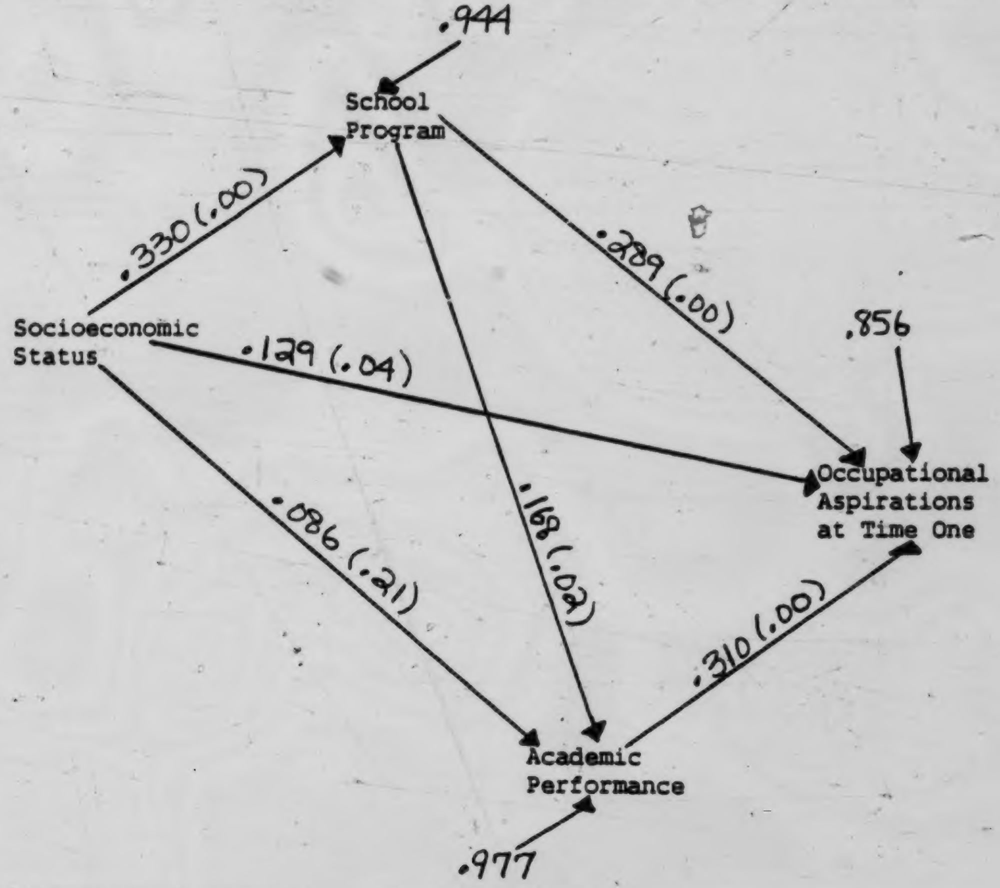
FIGURE 4.2 Path Model of Occupational Aspirations at Time One for Females Only


.965
School Program
.263 (.00)
.309 (.00)
Socioeconomic Status
.938
.015 (.82)
Occupational Aspirations at Time One
.089 (.19)
.118 (.08)
.109 (.09)
Academic Performance
.986

( )Significance level.

This model explains 12.0% of the variance in the occupational aspirations of females at Time One (N=231).

FIGURE 4.3 Path Model of Occupational Aspirations at Time One for Males Only


.944
School Program
.330 (.00)
.289 (.00)
Socioeconomic Status
.129 (.04)
.856
Occupational Aspirations at Time One
.086 (.21)
.168 (.02)
.310 (.00)
Academic Performance
.977

( )Significance level.

This model explains 26.7% of the variance in the occupational aspirations of males at Time One (N=230).

entirely indirect (.094), working mainly through its influence on school program. In addition, as was the case previously, the influence of school program is approximately three times that of socioeconomic status. Nevertheless, it would be inappropriate to conclude from these results that aspirations are determined mainly by achievement variables when in fact the achievement variable used here (school program) is influenced by an ascriptive variable (SES).

Figure 4.3 presents the results of the model for males. It is apparent that the model is much more useful for boys. The model explains 26.7% of the variation in the occupational aspirations of boys as compared to 12.0% for girls. In the case of males, all three independent variables have significant direct effects on occupational aspirations (socioeconomic status=.129; school program=.289; and grades=.310). School program has a small indirect effect (.052), via academic performance, which means that its total effect is .341. Socioeconomic status also has indirect effects, again mainly through its influence on school program. The indirect effects (.139) of socioeconomic status are larger than the direct effect, resulting in a total effect of .241.

Although the different pattern of results for males and females strongly suggest interaction, formal tests for interaction were done to ensure that the differences between males and females were not obtained by chance. Statistical interaction exists when the slope of the relationship between the dependent variable and one of the independent variables changes as the levels of the other variables (in this case gender) are varied (Agresti and Finlay, 1986:368). In order to determine if this is occurring in the present case, a t-test for significant differences between slopes was used.[32] This test was performed for all six slopes in the model. In order for the difference between slopes to be significant at the $p<.05$ level in a two-tailed test with 429 degrees of freedom (230 + 231 - 2), a t-value which exceeds 1.960 must be obtained. Using this criteria, only one pair of slopes demonstrated a significant interaction effect. A t-value of 2.331 was obtained for the slope which measures the influence of academic performance (grades) on aspirations. This is consistent with the results of other research which have found gender interactions in the relationship of academic performance measures on aspirations (e.g. Garrison, 1979:177).

---

[32] The t-value to test for a significant difference in slopes for two groups is obtained by subtracting the unstandardized slope of the second group from the unstandardized slope of the first group and then dividing this by the square root of the sum of the squared standard error of the first slope and the squared standard error of the second slope.

Despite the fact that only one pair of slopes were involved in a significant interaction effect, this effect was large enough to have a substantial impact on the explained variance for the two sexes. On average, for males, a one level increase in grades leads to a 6.4 point increase in occupational aspirations as measured on the Blishen scale. For girls, the influence of academic performance on aspirations is not significant. As a result, the model explains over twice as much of the variation for boys (26.7%) than it does for girls (12.0%). This finding is similar to the results of other research which suggests that the status attainment model works better for males than for females (Kerckhoff, 1984:142; Blakely and Harvey, 1988:32). Based on the findings here, it is obvious that the results for males and females should be presented separately. The model which was run on the total sample is misleading because it masks the different patterns of influence on occupational aspirations for males and females. Although this model could be run with an interaction term, the results of such an analysis are difficult to understand conceptually. Therefore, if an over-time change in goals is found in subsequent analyses it may be necessary to present separate male and female results for an expanded status attainment model.

C. Summary and Conclusions

This chapter has presented an analysis of the occupational aspirations of Edmonton youth in their final year of high school. Overall, it was found that the occupational aspirations of these youth are unrealistically high. It is likely that a number of them will face disappointment when they try to translate their aspirations into actual positions in the labour market. In order to determine what is influencing these aspirations, career goals were examined in the context of classical status attainment models. Despite data limitations which forced us to proceed with only a subset of the variables used in the literature, the status attainment replication explained a significant portion of the variation in occupational aspirations. Consistent with previous research, the effect of socioeconomic status is mainly indirect through its influence on education (school program). Finally, interaction effects with gender resulted in the model working better for males than for females.

Academic performance positively influenced the occupational aspirations of boys, but did not have a significant effect on the aspirations of girls. Similar interactions have been found by other researchers (e.g. Garrison, 1979). These findings, along with findings which demonstrate the persistence of gender differences in aspirations, indicate that gender stratification has not completely eroded, since aspirations have their basis in the actual stratification system. Thus, it may be the case that girls still aim for stereotypically female occupations despite their level of academic performance. A comparison of the aspirations of girls and boys indicated that girls' aspirations were clustered in some stereotypically female occupations such as social workers, elementary teachers, secretaries and hairdressers. This resulted in girls having less variation in their aspirations than boys. They also had slightly less variation in their grades. This could account for the interaction effect which was identified.

V. Work and School Experiences in the Year Following High School

Since this thesis proposes that career goals may change as a result of initial work experience after high school, it is important to describe these experiences. This chapter examines the work and school experiences of Edmonton youth in the year following high school. The analysis is divided into five sections. First, the choice between continuing education or entering the labour force is examined. Second, for those respondents who continued their education in Time Two, the type of school they entered is described. Third, the amount of time spent in education is considered. Fourth, the labour market experiences of those who continued their education are compared with those who entered the labour force directly. Finally, the relative level of success in the labour market is examined for the latter group. In addition to highlighting the various routes that youth may follow after high school, this chapter also examines how background factors are related to the courses followed. While some labour market outcomes are a result of personal choice, others, such as unemployment, are not. Labour market demand factors can serve as constraints on the options available to youth.

A. School versus the Labour Force

After high school, youth must choose whether to enter the labour force directly or to continue education.[33] However, recent research has suggested that the transition out of high school is no longer as abrupt as it once was (Krahn and Lowe, 1988b: 14-16). A surprisingly large percentage of our sample returned to school; 70.8% of the respondents continued their education in some way at Time Two, while 29.2% did not. We know that there has been a steady increase in the percentage of the population with post-secondary education in the past few decades. But these results suggest the operation of additional factors. Perhaps changes in the labour market are being reflected in educational choices. Young people anticipating problems finding work may choose to return to school instead.

---

[33] It is also possible that they may reject both in favour of other alternatives such as travel. However, only one respondent in this sample (N=665) reported not continuing education *or* entering the labour force. This case is grouped with the labour force group in subsequent analyses. However, this is of little consequence since for most labour market variables this case is treated as a missing value.

As can be seen in Table 5.1, 80.9% of youth who had planned to continue their education actually did so in the following year. Of those who did not plan to return to school, 71.6% followed through with their plans. Although the majority of youth carried through with their plans, a substantial percentage did not. Perhaps this was due to unexpected failures or low grades in the final year of high school. It could also be the case that educational goals at Time One are a little unrealistic.

Cross-tabular analysis was used to explore whether continuing one's education at Time Two was related to three sets of variables measured at Time One: 1) individual characteristics (including aspirations); 2) background factors (such as parents'education and occupation); and, 3) previous work experience. As outlined previously, individual and background factors have been found to influence educational choices in existing research. Work experience variables are introduced here on the assumption that such experience must surely influence choices to be made after high school about entry into the labour market. The results presented in Table 5.2 indicate that the decision to continue education is not a random phenomenon. Rather, it is closely related to a number of other factors.

Individual characteristics examined included age, gender, self-concept, career goals, educational goals, and grades.[34] Continuing one's education was not related to gender or self-concept. Although current changes in gender-roles account for the former non-relationship, the absence of a relationship with self-concept is contrary to expectations. Perhaps it is because we have not considered the type of education reported by respondents. This will be examined in the next section.

The remainder of the individual characteristics were significantly ($p<.05$) related to continuing one's education (Table 5.2). Those who were of regular high school age

---

[34] Due to the fact that the dependent variable in this section is dichotomous, five of the six independent variables were recoded so that they could be used in cross-tabular analyses. Age was divided into two groups, those 18 years and under, and those over 18 years. Self-concept was divided into low and high at the sample mean. Career goals were similarly divided into low and high, using the Blishen index mean as the cut-off point. Educational goals were also divided into low and high, with high including at least some university, and low consisting of anything less. Grades were divided into three categories; 59% or less was considered low grades, 60-69% was labelled average, and 70% or better was considered high.

TABLE 5.1 Plans to Continue Education (Time One) by Educational Activity (Time Two).

		Time One Plans	
		Not Continue Education	Continue Education
Time Two Activity	Not Continue Education	71.6% (N=83)	19.1% (N=103)
	Continue Education	28.4% (N=33)	80.9% (N=435)

Relationship is significant at the $p<.05$ level.

TABLE 5.2 Effects of Individual Characteristics, Background Factors, and Work Experience on Continuing Education.

	CHI SQUARE *	DF	P
I. Individual Characteristics			
i) Age	5.64	1	.02
ii) Gender	0.31	1	.58 **
iii) Self-Concept	0.12	1	.73 **
iv) Career Goals	40.02	1	.00
v) Educational Goals	74.91	1	.00
vi) Grades	12.46	2	.00
II. Background Factors			
i) High School	34.11	5	.00
ii) Program in School	77.91	2	.00
iii) Mother's Education	23.16	2	.00
iv) Father's Education	14.62	2	.00
v) Mother's Occupation	8.82	1	.00
vi) Father's Occupation	3.37	1	.07 **
vii) Family Financial Situation	13.43	2	.00
III. Work Experience			
i) Paying Job in Past 9 Months	18.64	1	.00
ii) Job in Past Summer	2.03	2	.36 **
iii) Job at Present	18.10	1	.00

---

* Significance test for dependent variable (continued education/not continued) cross-tabulated with the independent variables listed.

** Not significant at the $p<.05$ level.

(18 years or under) were more likely to have continued their education (72.3%) as compared to those over age eighteen (58.9%). Those with high career goals were more likely to have continued their education (79.2%) than those with low career goals (52.8%). In the case of educational goals, the difference was even greater. Grades played a somewhat less important role than expected. Those with low grades were almost as likely to have continued their education (68.1%) as those with high grades (78.2%), and more likely to continue than those with average grades (65.0%). Again, the form of this relationship is probably due to the fact that we have not yet considered the type of school respondents chose.[35] This is dealt with in the following section.

All but one of the background factors (high school attended, program in school, mother's education, father's education, mother's occupation, father's occupation, and the respondent's perception of his or her family's financial situation)[36] were significantly related to whether or not respondents continued their education (Table 5.2). The percentage of students continuing their education varied widely among the high schools sampled, ranging from a high of 92.7% at Queen Elizabeth to a low of 53.7% at Jasper Place. The 77.0% continuing their education at Harry Ainley is probably a better indicator of the high end of this range, since the Queen Elizabeth results may not be representative.[37] The differences between high schools are likely the result of the two inter-related factors: 1) the socioeconomic characteristics of the area that the school is in; and, 2) the academic versus non-academic orientation of the school's programs. In fact, a total of 81.2% of those in an academic program continued their education, compared to only 44.4% in business and vocational programs, and 50.0% in the general program.

---

[35] Some of those who continued their education in Time One were returning to high school to improve their grades.

[36] Once again, some recoding was required for the cross-tabular analyses. Parents' occupations were recoded in the same way as respondents' career goals. Parents' educations were divided into three categories: low referring to less than a completed high school education; average referring to high school graduates; and, high referring to those with some post-secondary education.

[37] The high percentage of respondents from Queen Elizabeth who are continuing their education is probably artificially high due to sampling bias. The researchers who collected these data indicated that administrators in this high school only allowed them into their best classes.

Not surprisingly, mother's and father's education were significantly related to whether or not respondents continued their education. Those who had mothers with high levels of education were more likely to have continued their education (82.7%), compared to those whose mothers had low levels of education (62.6%). The difference with father's education was similar and was also in the expected direction. The relationships between continuing in school and mother's and father's occupation were also in the expected direction, but only the former was statistically significant (p<.05).[31] Respondents whose mothers had high SES occupations were more likely to have continued their education (79.0%) than respondents whose mother's had low SES occupations (66.2%). The final background factor examined was the respondent's perception of his or her family's financial situation. Those who perceived it to be above average were more likely to have continued their education (77.4%), compared to those who perceived it to be below average (55.4%).

Table 5.2 also displays the relationships between whether or not respondents continued their education and previous work experience. Three measures of whether or not the respondent had any work experience while still in high school were used in this analysis: 1) having had a paying job sometime in the last nine months of high school; 2) having had a paying part-time or full-time job in the summer prior to the last year of high school; and 3) having had a paying job at the time of the survey. Two of these measures were significantly related to continuing education. Those repondents who reported a paying job sometime in the last nine months of high school, were less likely to have continued their education (65.6%) than those who had not worked (82.0%). Having a paying job when surveyed also reduced the likelihood of having continued education in a similar manner. Having had a job in the summer prior to the last year of high school did not have a significant effect on the likelihood of continuing education. It appears that work during the school year is negatively associated with continuing education, while work in summer jobs is not related to continuing education.

These results demonstrate that the decision to continue education is related to individual, socioeconomic background, and work experience variables. Those who were not above the usual high school age in Time One were more likely to have continued their education. This is probably due to the fact that many of those in high school above the normal age have already experienced academic failure at some point. Also, as expected, those with high career goals, high educational goals, and high grades, were all more likely to have continued their education. High school and program in school were also related to the continuation of education. Consistent with other research in the area of education and social class, measures of socioeconomic status were found to be related to the dependent variable. Those from more privileged backgrounds are more likely to have continued their education. Finally, working during the school year negatively affects the likelihood of continuing education. Those who do not plan to go on in school may seek work while in school. Alternatively, work while in school might actually lead to a lowering of educational goals. Tanner and Krahn (1988:4) identify some recent research which supports the latter explanation. However, these authors also note that other research has failed to support this hypothesis.

---

[31] Moving the cut-off point between high and low occupations from the Blishen index mean to the actual sample mean does not result in the relationship becoming significant.

B. Type of Education

What types of education did these young people choose, and what factors influenced the choice? Table 5.3 cross-tabulates more detailed educational plans at Time One with actual educational activity at Time Two. Plans and activities corresponded quite well, with some exceptions. These exceptions may indicate that educational goals are inflated in a similar manner as occupational aspirations. The most notable differences between plans and reality occurred with those respondents who had planned to attend technical schools or community colleges. Only 38.0% of those reporting such plans carried them through. Substantial numbers of this group did not continue their education at all (30.5%) or ended up returning to high school (28.2%). Perhaps technical school appeared to be an easy answer for those who are not committed to higher education. For the remainder of this section only those respondents who actually continued their education at Time Two (N=471) will be considered. Within this smaller subsample, 38.9% returned to high school, 27.0% went on to technical schools, community colleges, and other non-university schools, and 34.2% entered university.

TABLE 5.3 Type of School Respondents Planned to Attend at Time One by Type of School Actually Attended at Time Two.

		Time One Plans			
		Not Cont. Education	Return to H.S.	Tech/Col Other	University
Time Two Activity	Not Continue Education	71.6% (N=83)	18.6% (N=16)	30.5% (N=65)	10.5% (N=25)
	Return to High School	14.7% (N=17)	70.9% (N=61)	28.2% (N=60)	18.4% (N=44)
	Tech/College Other	10.3% (N=12)	9.3% (N=8)	38.0% (N=81)	8.8% (N=21)
	University	3.4% (N=4)	1.2% (N=1)	3.3% (N=7)	62.3% (N=149)

Relationship is significant at the p<.05 level..

As with the decision to continue education, cross-tabular analysis was used to explore whether or not the type of school entered was related to the same three sets of independent variables measured at Time One: 1) individual characteristics; 2) background factors; and 3) work experience. The results in Table 5.4 indicate that the type of school the respondents entered was significantly related to all but one of the individual factors.[19] In the case of age, 36.4% of those 18 years of age or younger at Time One went on to university, as compared to 11.6% of those who were over 18 years. The older respondents were more likely to have ended up in technical schools or community colleges (55.8%) as compared to the younger group (24.1%). As for gender, 47.3% of males returned to high school, compared to only 30.3% of the females. Consequently, females were more likely to have continued on to further education.

The expected relationships were also found with the other individual factors. Those with high career goals were more likely to have gone on to university (40.8%) than those with low career goals (12.9%). The relationship with educational goals was even more pronounced. 59.4% of those with high educational goals went on to university as compared to only 3.0% of those with low educational goals. Finally, those with high grades were more likely to have gone on to university (59.4%), compared to those with average grades (16.2%), and those with low grades (4.8%).

All of the background variables examined were found to be significantly related to the type of school attended in Time Two (Table 5.4). Not surprisingly, program in high school was strongly related to the type of school attended one year after high school; 41.7% of those in the academic program went on to university, as compared to only 5.0% in business and vocational programs and 7.1% in the general program. The high school attended was also related to the type of school entered at Time Two. The percentages going on to university (of those continuing education) ranged from a low at Victoria Composite of 11.4% to a high of 45.0% at Ross Sheppard. These same two schools also had the lowest and highest percentages returning to high school, but in this case the positions were reversed.

The relationships between type of school attended and parents' education and occupation were all in the expected direction. Those whose mothers had high levels of

---

[19] While those with a higher self-concept were more likely to have gone on to university, the relationship was not significant.

TABLE 5.4 Type of School by Individual Characteristics, Background Factors, and Work Experience.

	CHI SQUARE *	DF	P
I. Individual Characteristics			
i) Age	22.13	2	.00
ii) Gender	14.73	2	.00
iii) Self-Concept	5.14	2	.08 **
iv) Career Goals	26.11	2	.00
v) Educational Goals	165.02	2	.00
vi) Grades	115.33	4	.00
II. Background Factors			
i) High School	44.76	10	.00
ii) Program in School	46.31	4	.00
iii) Mother's Education	23.26	4	.00
iv) Father's Education	25.93	4	.00
v) Mother's Occupation	6.24	2	.04
vi) Father's Occupation	12.42	2	.00
vii) Family Financial Situation	16.20	4	.00
III. Work Experience			
i) Paying Job in Past 9 Months	9.35	2	.01
ii) Job in Past Summer	15.72	4	.00
iii) Job at Present	4.90	2	.09 **

* Significance test for dependent variable (type of school) cross-tabulated with the independent variables listed.

** Not significant at the p<.05 level.

education were more likely to have gone on to university (47.7%) than those whose mothers had low levels of education (24.8%). A similar difference was found with fathers' education. Those whose mothers had high SES occupations were more likely to have gone to university (40.9%) than those with mothers who had low SES occupations (28.8%). The same comparison with fathers's occupation yields similar results. Finally, when we turn to the respondent's perception of his or her family's financial situation, 40.3% of those who considered their family's financial situation to be above average went on to university. As for those who reported their family's financial situation to be below average, the largest percentage of respondents (48.4%) chose technical schools or community colleges.

The final group of variables to be considered index work experience gained while still in high school. In brief, those with more work experience were less likely to go on to university. Only 29.2% of those respondents who had worked during the school term went on to university, compared to 42.8% of those who did not work in the final year of high school. In addition, 45.1% of those who had not had a paying job in the past summer went on to university, compared to 26.3% of those who had part-time jobs and 31.0% of those who had full-time jobs in the summer. This may relate to socioeconomic status; more affluent youth, who are more likely to attend university, may be less likely to rely on summer jobs as a source of income. Finally, respondents with a paying job at the time of the Time One survey were less likely to continue on to university, but this relationship was not significant (p=.09).

In summary, two points are worth noting. First, educational plans in the final year of high school correspond reasonably well with educational behavior at Time Two. However, the choice of educational institution is not an independent decision. The type of school attended is closely related to individual characteristics, background factors, and work experience in high school. Younger respondents, females, and those with higher aspirations are all more likely to to have gone on to university. In addition, socioeconomic background factors positively influence the probability of attending university. Finally, work experience while in high school seems to have a negative affect on the likelihood of attending university. As noted earlier, those less educationally-oriented may attempt to enter the labour force earlier, or part-time work itself may influence educational plans and outcomes.

C. Time Spent In Education

Since such a large percentage (70.8%) of the sample continued their education at Time Two, a measure of the length of time in school was created which would take into account both full-time and part-time education.[40] Using this new variable, we find an average of 6.75 months spent in school (Table 5.5). Those who went on to university were in school longer, on average (7.82 months), than those who entered technical schools or colleges (6.08 months) or returned to high school (6.25 months). A one-way analysis of variance indicated that there was a significant difference among the conditional means of months in school, given the type of school the respondent was in.

The large majority (80.1%) of those who had gone on to university were in school for 8 months. This corresponds to a full year in university. There was more variation in the length of time spent in other types of schools. The modal length of time in school for high school students was 5 months (20.0%), while for technical/college students it was 9 months (29.2%). Nevertheless, what stands out in this analysis is the amount of variation in the length of time spent in school. When we consider the entire sample that continued their education in Time Two, the length of time spent in school ranges from a low of one-half a month to a high of twelve months. Thus, it appears that educational activity varies widely among those who returned to school in Time Two. A full 21.9% who continued their education were in school 4 months or less.

At the outset, we had planned to examine the group who continued their education separately, hypothesizing that there would be no change in goals in this group. Compared to the group who entered the labour force directly, they would form a control group since they would not have experienced any of the negative or positive consequences of labour market entry. The considerable variation in time spent in school prompted the question of how to classify those who reported only a short time in school in Year Two. It was hypothesized that those who were in school only a short time would have spent considerably more time in labour force activity. Therefore, it was

---

[40] This variable added full-time plus part-time months divided by two in order to get a rough estimate of the total months spent in school.

TABLE 5.5 Average Months Spent in School by Type of School.

	Mean Months in School *	Standard Deviation
Returned to High School	6.25	3.02
Tech School/Community College	6.08	3.04
University	7.82	1.19
Total (N=461)	6.75	2.65

*Mean months in school combines full-time months plus part-time months divided by two in order to get a rough estimate of the total months spent in school.

**A one-way analysis of variance indicated that there is a significant difference among the conditional means of months in school, given the type of school the respondent was in.

reasoned that if some of those who continued their education were really more attached to the labour force, then they would better belong in this group in the subsequent change analysis.

Table 5.6 compares the time spent in work for various groups of respondents who continued their education and for those who entered the labour force directly. It is evident that all of the groups participated in the labour force to some extent. Also, as hypothesized, those who were in school less had spent more time in labour force activity. However, no matter how much time was spent in school, those groups who had continued their education did not come anywhere close to the labour force group in the amount of time spent in work. Although this difference holds with both the total months worked and months worked full-time, it is predominantly true in the case of full-time work. The average amount of time spent in full-time work for those who continued their education ranges from a low of 1.2 months for those who were in university 8 months or more, to a high of only 4.2 months for those who were in technical schools or colleges for less than 5 months. This compares to the average of 7.4 months in full-time work for those who had entered the labour force directly after high school. One-way analyses of variance indicated that there were significant differences among the conditional means of months worked and months worked full-time, given the type of activity the respondent was in (based on group totals).

Thus, while school does not preclude labour force participation, those who continued their education and those who did not are relatively discrete groups in terms of amount of paid work. This is not surprising since these two groups work for very different reasons. Even those who continued their education for only a few months did not participate in labour force activity to anywhere near the same extent as those who left school completely. Therefore, even though some sample members reported only a few months of education in Year Two, it would be inappropriate to put them into the labour force category. For youth at this age, real attachment to the labour force does not appear to develop until all ties with education are completely broken. This finding justifies concentrating on the labour force group in later sections of the analysis.

TABLE 5.6 Average Months Spent in Paid Employment by Educational Activity.

Educational Activity	Mean Months Worked (Total)*	Mean Months Worked Full-time
Returned to High School		
Less than or equal to 5 mo.	6.5	2.9
Greater than 5 mo.	5.3	2.0
Total	6.0	2.5
Tech/College		
Less than 5 mo.	6.5	4.2
Less than 8 mo.	6.2	3.7
Greater than or equal to 8 mo.	5.1	1.8
Total	5.8	3.0
University		
Less than 8 mo.	5.6	3.7
Greater than or equal to 8 mo.	4.1	1.2
Total	4.2	1.4
Did Not Continue Education	8.9	7.4

*Mean months worked combines full-time months plus part-time months divided by two in order to get a rough measure of the total time spent working.

**One-way analyses of variance indicated that there are significant differences among the conditional means of months worked, and the conditional means of full-time months worked, given the type of educational activity the respondent was in (anovas based on totals of each group).

D. Labour Market Experiences

Comparing the labour market experiences of those who continued their education and those who did not leads to the same conclusion that these are two discrete groups (Table 5.7). Although the large majority of respondents in both groups reported a paying job at some point during Year Two, the difference between the groups was significant. Almost all (98.5%) of the labour force group had worked in the past year, compared to only 87.5% of the "student" group. However, the two groups did not differ in the number of jobs held in the past year. Both reported an average of 2 different jobs. The difference between the two groups is highlighted the most when we consider whether the work experience consisted of part-time or full-time employment. Those who went directly into the labour force worked an average of 7.35 full-time months and 2.25 part-time months. For those who continued their education, it was the opposite. They worked an average of 3.14 full-time months and 6.17 part-time months.

In short, those who continued their education appear to have only a part-time, secondary commitment to labour force activity, whereas labour force participation is a full-time concern for those who did not continue their education. Further evidence of this is gained when we examine the subsample that was currently in paid employment when surveyed at Time Two. Although equal percentages of the two groups were currently working, the groups did differ in the percentages in part-time employment. Only 21.5% of the labour force group were in part-time jobs, in comparison to 53.8% of those who had continued their education.[41] We also find a significant difference in the number of part-time workers preferring full-time employment. A full 70.6% of part-time workers in the labour force group preferred full-time work, while this was the case for only 51.9% of those who continued their education.

There was also a statistically significant difference in the socioeconomic status of the occupations held by the two groups. Those in the labour force group fared somewhat better with an average Blishen score of 33.34, compared to the average of 31.62 in the group who continued their education. Examples of occupations within this

---

[41] The percentage of continuing "students" in part-time work is probably even lower than normal, due to the time of year the survey data were collected. Time Two data were collected in May, when a substantial portion of those who returned to school would be out for the summer and, therefore, available to take full-time employment.

TABLE 5.7 Labour Market Experiences and Evaluations, One Year After High School.

	Labour Force #		Continued Education
Percent having a paying job in the past year	98.5% (N=191)		87.5% (N=412)
Average no. of different jobs jobs held in the past year	2.02	*	1.99
Average no. of months			
worked full-time:	7.35		2.25
worked part-time:	3.14		6.17
Percent having a paying job at present	85.3% (N=163)	*	85.9% (N=353)
Percent of those employed who are in part-time jobs	21.5% (N=35)		53.8% (N=190)
Percent of part-time workers who prefer full-time	70.6% (N=24)		51.9% (N=95)
Mean Blishen score of present/most recent job	33.34		31.62
Mean no. of weeks R held present/most recent job	36.96 weeks	*	37.14 weeks
Modal response of why R left most recent job	Laid Off (34.6%) (N=9)		Return to School (37.0%) (N=20)
Percent who would choose the same type of work again	57.7% (N=94)	*	61.7% (N=213)
Mean level of job satisfaction (1=low, 5=high)	3.45	*	3.50

Table 5.7 con't.

Percent unemployed in the past year	33.5% (N=65)	*	32.5% (N=153)
Mean no. of weeks unemployed in past year	13.91		17.64
Percent currently unemployed	10.3% (N=20)	*	10.6% (N=50)
Mean perceived likelihood of unemployment (1=not likely, 4=very likely)	2.10	*	2.22
Mean perception of unemployment as a problem (1=not a prob, 5=serious prob)	4.33	*	4.30
Mean readiness for a job commitment (1=ready, 5=not ready)	2.54		3.01
Mean level of Time Two career goals in Blishen scores	48.68		58.94

# The labour force group is comprised of the respondents who had completely left school. Respondents who had spent any time at all in school were put in the continued education group.

* Differences indicated with an asterisk were not significant at the .05 level.

range on the Blishen scale include hotel clerks, security guards, dancers and choreographers, protective service occupations, and electrical equipment fabricators. Thus, while the difference in occupational status was statistically significant, it does not represent a substantive difference. There is, simply, only a limited range of occupations that youth at this age may enter. This limited range of jobs for youth is evidence of the age-segmented nature of the labour market. As Krahn and Lowe indicate, youth with only a high school education have difficulty in moving out of the "student" labour market even after they have left school (1988b:24).

The two groups did not differ in the length of time they had held their present or most recent job (an average of 37 weeks), or in their relative level of job satisfaction. Approximately sixty percent of respondents in both groups would choose the same type of work again, and, on average, both groups were only moderately satisfied with their job. This non-difference in job satisfaction is surprising when we consider the relatively low-level jobs the respondents held. One would expect that respondents in the labour force group would be less satisfied with these positions since they would have fewer alternatives than in the "student" group. The latter could view these jobs as only "jobs while in school", and hope for something better once their education was completed. Nevertheless, one area where there was a difference between groups was in the reasons given for leaving jobs. The most common reason in the labour force group was being "laid off" (34.6%), while in the "student" group, as would be expected, it was to "return to school" (37.0%).

Not surprisingly, given the Edmonton economy at the time, neither group was exempt from the experience of unemployment. In both groups, approximately one-third of the respondents had experienced unemployment at some time in the past year. In addition, slightly over ten percent of both groups were currently unemployed at the time of the Year Two survey. However, the two groups differed in the average length of time unemployed. Of those who had experienced unemployment, the average number of weeks unemployed for the labour force group was 13.91; for the group who continued their education, it was 17.64 weeks. Unemployment would present more of a problem for the labour force group. Consequently they would devote more time to alleviating the condition. It is also possible that continuing students might have more trouble finding work because employers prefer someone who has left school completely. A test of these interpretations would, of course, require further research.

Both groups perceived unemployment to be a serious problem. Despite this, in both groups only a minority thought that they themselves would experience unemployment in the near future. While youth in both groups seem to be aware of the general negative condition of the labour market, they are less willing to accept that the labour market might affect them personally. Thus, the concerns about unemployment do not necessarily translate into personal pessimism about work opportunities. Nevertheless, the groups did differ in two final respects. First, those in the labour force group were, on average, more prepared for a long-term job commitment than those who continued their education. However, even in the labour force group there was far from total agreement with the statement that they were ready for a long-term job commitment. These sample members were, after all, only about 19 years old at the time.

Second, those in the labour force group were aiming substantially lower in terms of career goals at Time Two, compared to those who continued their education. The average Blishen score of the career goals of the labour force group was 48.68. Examples of jobs with Blishen scores close to this are dispensing opticians, travel attendents, mechanical repair foremen, and construction electricians. Although these jobs represent lower goals than those of the group who continued their education, they are considerably higher than the average level of jobs presently held by these respondents. Also, some of them would require some form of further education. They are jobs which are, generally speaking, characteristic of the skilled trades. In contrast, the average Blishen score of the career goals of those who continued their education was 58.94. Occupations at approximately this level include securities traders, respiratory technicians, denturists, and accountants. These are jobs at the middle white-collar or technician level, and appear to be fairly realistic aims for people expecting to complete some form of further education.[42] However, considering the large percentage of respondents continuing their education, it is unlikely that all of these youth will fulfill their aspirations.

---

[42] Despite the status difference in career goals of these two groups, it must be remembered that individual respondents may be aiming for goals much less in line with the average. This is suggested by the high standard deviations around the mean career goals for the labour force group and the group who continued their education (11.24 and 17.94 respectively). Therefore, in making the aggregate level conclusion that the two groups differ in their career aims, we must also remember that individual cases may not conform to this pattern.

E. The Labour Force Group

Earlier we examined the factors that influence the decision to continue education, and to enter a particular type of school. Here, a similar analysis is presented for the labour force group only (N=194). This section seeks to identify which, if any, factors influence the relative success or failure of respondents who went directly into the labour market. The same individual, socioeconomic background, and work experience variables from Time One are again examined for their relationship with four measures of labour market success: 1) whether or not the respondent has experienced unemployment in the past year; 2) length of time unemployed; 3) whether or not working respondents are in part-time or full-time jobs; and, 4) the status level of respondents' present/or most recent job.

Cross-tabular analysis indicated that none of the individual and background factors were significantly related to the experience of unemployment. In the examination of the work experience variables, only summer jobs held prior to leaving high school were found to be significantly related to unemployment. However, the pattern is hard to interpret. Only 23.2% of those who had held part-time jobs in the summer prior to leaving high school experienced unemployment in the year following high school. This compares to 37.3% for the group who had worked full-time in that summer, and 42.6% in the group who hadn't held a job that summer. While we would expect those without jobs in the summer prior to leaving high school to experience more unemployment, as a result of having less work experience, it is unusual that those who had held full-time jobs experienced more unemployment than those who had held part-time jobs. The reasons for this finding are not immediately apparent.

Although none of the background and individual factors were associated with the experience of unemployment, it is still possible that they may be related to the length of unemployment.[43] However, all of the zero-order correlation coefficients between these

---

[42] (cont'd) This caution holds true for all aggregate level comparisons.

[43] The measure of length of unemployment used here included "0" for those never unemployed.

factors and the length of unemployment were found to be non-significant.[44] Background and individual factors were also not related to whether or not respondents worked part-time or full-time.

Unlike background and individual factors, work experience variables did have some relationship with both length of time unemployed, and in particular, with whether respondents were in part-time or full-time work when surveyed at Time Two. Having held a job in the summer prior to the final year of high school decreased one's chances of long-term unemployment.[45] Of those who had no job in that summer, 48.3% of those who had experienced unemployment were long-term unemployed. This compares to 37.5% of those who had worked part-time and 15.8% of those who had worked full-time. But the two variables which measured work experience during the school year were not related to the length of unemployment in Time Two. Using part-time or full-time work as the dependent variable, we find that all the work experience variables from Time One were significantly related. As expected, the more work experience one had in high school, the more likely one was to be in full-time rather than part-time work once entering the labour force.

The final variable examined in this section was the status level of the respondent's present/or most recent job. As with the other measures of labour market success, it was found to be unrelated to background and individual factors. None of the zero-order correlations between these factors and the status level of present/or most recent job were found to be significant.[46] It appears that, for recent high school leavers, background and individual factors have little influence on labour market success, once the decision has been made to enter the labour force. This finding is consistent with the literature which asserts that the effect of background on occupational attainment is indirect, through its influence on education (Blau and Duncan, 1967; Cuneo and Curtis, 1975; Boyd, Jones, McRoberts, Pineo, and Porter, 1981). In this section, we are dealing with respondents who have the same level of education (high school), so it is not surprising that they are entering the same labour market, regardless of their background.

---

[44] The partial coefficients from a multiple regression equation with length of unemployment as a dependent variable were also non-significant, as was the F statistic for the whole equation.

[45] For the purpose of cross-tabular analysis, the length of unemployment was broken into short-term and long-term, using the labour force group mean of 13.91 weeks unemployed as the cut-off point (those never unemployed were excluded from this analysis).

[46] The F statistic in the multiple regression equation was also non-significant, as were all of the partial coefficients except for mother's job.

The limited range of occupations available to youth at this age was discussed earlier in the comparisons between those youth who entered the labour market directly, and those youth who continued their education. Although both groups were in relatively low level jobs, those who continued their education can, in most cases, look forward to something better. But for the labour force group, this range of jobs represents the labour market that is open to young people with only a high school education. A quick look at the occupational distribution for the labour force group identifies the types of jobs in which respondents are clustered. Although there were no significant gender differences found in the level of the present/or most recent job, as measured on the Blishen scale, we can still see stereotypical differences in the actual occupations that were held. In fact, 70.0% (N=68) of the females were clustered in the following occupations: secretaries and stenographers, typists, bookkeepers, cashiers and tellers, office clerks, sales clerks and salespersons, food and beverage serving occupations, and barbers/hairdressers. There is somewhat more diversity in the occupations reported by males. However, 38.7% (N=36) of males were clustered in the following occupations: stock clerks, sales clerks and salespersons, occupations in labouring and other elemental work (in "other service" occupations -- e.g. autowashers, dishwashers, and factory labourers), motor vehicle mechanics and repairers, and carpenters and related occupations. These findings are consistent with previous research which shows gender-segregation in the jobs youth enter (Baker, 1985:71; Ashton, 1986a:11-12), and less diversity in the aspirations of women (Anisef et al., 1980:114; Baker, 1985:78). Gaskell (1988) argues that this gender segmentation of the labour force upon entry to the labour market is a result of the constraints placed on choice by the organizational gender differentiation of the school.

It becomes clear after reviewing this section that the labour market for youth with only a high school education is quite limited. Background and individual factors do not influence labour market success at this stage. In addition, although prior work experience does, in some cases, increase one's likelihood of being employed, it does not affect the level of jobs in which respondents are employed. While recognizing that there are individual exceptions, it appears that the majority of youth in this sample are encountering barriers in the labour market which serve to confine them to a fairly restricted set of occupations at the lower end of the occupational hierarchy.

F. Summary and Conclusions

A number of conclusions can be drawn from the findings in this chapter. First, a substantial majority of respondents are continuing their education, and furthermore, the decision to do so is not a random phenomenon. It is related to individual, background, and work experience variables. Second, as with the decision to continue education, the type of school respondents attended at Time Two was related to individual, background, and work experience variables. Third, although being in school does not preclude labour force activity, those who continued their education and those who entered the labour force directly are discrete groups in terms of their labour force participation. This is true regardless of the amount of time respondents in school devoted to their education. Consequently, if a change in career goals is found in Part Three of the analysis, then these two groups will be analyzed separately in Part Four where the change in career goals is explored.

Fourth, although the labour force group and the group who continued their education were discrete groups in terms of labour force participation, both groups appear to have entered the same labour market. Both groups were in similar occupations, had experienced unemployment to the same extent, and were aware of the condition of the labour market, although they were unwilling to admit that it might affect them individually. However, the two groups differed in their career aims, with those in the labour force aiming lower in terms of career goals and being more willing to commit to a job at the present time.

Fifth, once the decision has been made to enter the labour force with only a high school education, individual and background factors have little effect on the relative success or failure of respondents in the labour market. Finally, this may be because youth at this age are entering a relatively limited labour market, segmented not only on the criteria of age (which takes into account education and experience), but also by gender. The occupations available to these youth are clearly below their aspirations.

Therefore, it will be interesting to explore whether or not these youth are lowering their career goals in response to this situation. The main hypothesis of this thesis would predict that they do.

VI. Change in Goals Between Time One and Time Two

In Part One of the analysis, respondents' career goals while still in high school were examined in the context of earlier research on status attainment. Part Two involved a descriptive account of the work and school experiences of youth in the first year after high school. In Part Three, we will see whether or not a change in career goals occurred during this year. If, as predicted, a change in goals is found, then the final section of the analysis will explore the nature of the change and attempt to extend earlier status attainment models by the inclusion of labour market demand factors.

In order to get a crude overall measure of change in career goals, a new variable labelled *change* was created. If goals at Time One, as measured on the Blishen scale, were higher than goals at Time Two, the value of the change was 'goals lowered'. If goals at Time One were the same as goals at Time Two, the value was 'goals the same/no change'. Finally, if goals at Time One were lower than goals at Time Two, the value of the change was 'goals raised'. Thus, the three levels of the change variable encompass the three possibilities for change: goals lowered, no change, and goals raised. The results of this analysis are presented in Table 6.1.

A. Missing Data on Change

As can be seen in Table 6.1, missing data force us to deal with a smaller sample size. In order to look at a change in career goals, respondents must have given a legitimate occupational goal in both years. However, this was not the case for one-third of the sample. Fifty-five respondents did not give a specific occupation in Time One, one hundred and fifty-two did not do so in Time Two, and another thirty-one respondents did not do so in either year. In total, this resulted in 238 cases being eliminated from the analysis, reducing the sample size for the final phase of analysis to N=427 from the previous N=665. The increase in uncertainty in Year Two suggests that perhaps things such as an increased awareness of more career options gained through further education, or an increased awareness of a difficult economy are serving to create more indecision.

Respondents were eliminated from the change analysis for several different reasons. First, of the total number of responses in this missing category, a considerable

TABLE 6.1 Change in Career Goals Between Time One and Time Two

Change	Frequency	Percent	Valid Percent
1)Goals Lowered	121	18.2%	28.3%
2)Goals the Same/No Change	191	28.7%	44.7%
3)Goals Raised	115	17.3%	26.9%
Missing Data	238	35.8%	Missing
Total	625	100.0%	100.0%

Valid Cases=427 Missing cases=238

number consisted of the traditional types of missing data, with 18.6% being 'don't know' and 14.5% attributable to simple non-response. Second, the response 'housewife', could not be used, simply because it was not included in the conceptualization of the occupational scale. However, this response was not very common, (one in Time One and three in Time Two), accounting for only 1.5% of the responses in the missing category. A third type of response which ended up in this category was the general response which identified job characteristics rather than actual occupations. This type of response consisted of replies such as "I want a job that pays well" or "I want a job where I can work independently". This accounted for 31.6% of the responses in the missing category. The final and most common type of missing data response was the listing of several jobs, which accounted for 33.8% of responses categorized as missing in the change analysis. Unless the researcher arbitrarily chose one of the occupations listed, these answers could not be adapted to an occuptional scale measure.

It was impossible to ignore such a large number of responses which would have to be eliminated in the examination of change. Therefore, it was decided to explore these two hundred and thirty-eight respondents further, before proceeding to an analysis of the change in goals. In particular, we examined whether these respondents differed in any way from those who had given specific occupational answers in both years. Two hypotheses were tested: 1) career indecision (general answers or non-response to career goals) is related to respondents' background characteristics; and 2) career indecision at Time Two is related to negative labour market experiences. Thus, it was hypothesized that career indecision was related to background and labour market characteristics in much the same way as a change in goals might be.

In order to test these two hypotheses, the career goal data received were broken into four categories: 1) specific occupational goals given in both years -- no missing data; 2) specific occupational goal missing in Time One but present in Time Two; 3) specific occupational goal present in Time One but missing in Time Two; and 4) specific occupational goals missing in both years. The results of the crosstabulations of this new variable by background and labour market variables indicated that the type of data received on the career goals questions was not related to gender, age, father's occupation, father's education, grades, educational goals, whether or not the respondent continued education at Time Two, level of most recent job, experience of unemployment, experience of unemployment controlling for whether or not the respondent continued education, length of unemployment, currently being unemployed, currently being unemployed controlling for whether or not the respondent continued education, and self-reported readiness for a long-term job commitment.

However, two variables were related to the type of data received on the career goals questions. These variables were self-concept and the respondent's perception of his or her family's financial situation. In the case of the latter, a clear linear relationship was observed. However, it was in the opposite direction than would be expected. The higher the respondent's perceived family financial situation, the more likely the respondent was to have experienced career indecision. Of those who perceived their family's financial situation to be below average, 76.8% had specific occupational goals in both years, while only 64.1% of respondents who saw their family's situation as average, and 61.7% of those who saw it as above average had specific occupational goals in both years. Although this relationship was not significant at the $p<.05$ level ($p=.10$), it does deserve comment.

Perhaps those who perceive their family's financial situation to be average or better, experience career indecision more often because they are allowed the option of delaying a commitment to a specific career goal longer than those in below average circumstances. It is logical to assume that less affluent families would require their children to become financially independent at an earlier age, whereas youth in better family economic circumstances are not pressured by this necessity. It is also the case that youth from higher socioeconomic status backgrounds are more likely to go on to further education, which gives them a chance to postpone specific career decisions.

Self-concept was the other variable associated with the type of data received on the career goals questions, although, again, the relationship was not significant at the $p<.05$ level. This time the pattern was in the expected direction; those with a high self-concept were more likely to have had specific occupational goals in both years. This pattern holds whether we use self-concept as measured at Time One, or at Time Two. The relationship is not surprising since one would expect those with a high self-concept to be more certain about all areas of their life, including future career plans. Since self-concept and respondent's perception of family financial situation were the only two variables which showed any relationships with the type of data received on the career goals questions, it was decided to pursue the analysis of these variables a bit further.

Responses to the career goals questions were collapsed into two categories (specific occupational goals given in both years, and specific occupational goals missing in one or both years), in order to maximize cell frequencies in the crosstabulations.[47] The relationship between self-concept and career indecision was then examined, controlling for the respondent's perception of family financial situation. An interesting interaction surfaced from this test. Self-concept and career indecision were not related for those who perceived their family's financial situation to be either below average or above average. However, for those of average family financial situations, self-concept was related to career indecision ($p<.05$). In this group, 42.2% of respondents with low self-concept as compared to 29.1% of those with high self-concept were indecisive about career goals in one or both years. Thus, it appears that individual factors may play a greater role in the career goal formation process of middle income youth than they do for lower and upper income youth. The reasons for this finding are not immediately apparent. Perhaps, for those at either end of the socioeconomic scale, self-concept and other individual factors take a secondary role to factors such as parental and peer encouragement, amount of career information, school performance, and type of school. Further research is needed to explore this interpretation of the career decision making process.

In conclusion, the overall impression gained by the examination of those respondents who did not give a specific occupational goal in one or both years is that they do not differ significantly from those respondents who were able to specify specific occupational goals in both years. In addition, the presence of a large percentage of the sample expressing vocational indecision should not be regarded as unique. Similar findings have been reported by other researchers. Jepsen (1975) concluded that crystallized occupational goals may not yet be formed at the high school stage. His data suggested that "decisions in high school involve selecting and processing occupational information rather than choosing among occupational goals" (p.235). Breton (1972) found that a full one-third of his Canadian nationwide sample of high school youth were not able to express a specific occupational preference, and that this rate of indecision was well above the 3% rate of non-response on the rest of the questions in his survey (1972:17-18). Similarly, Fottler and Bain found that 18.3% of their sample of Alabama high school youth were unable to give a tentative occupational choice (1984:239).

---

[47] This data transformation served to make the relationship between self-concept (Time One) and career indecision significant at the $p<.05$ level. However, the relationship between the respondent's perception of family financial situation and career indecision remained non-significant.

What is more surprising than the amount of vocational indecision among high school youth is the lack of attention paid to this phenomenon in the status attainment literature. Most research following the Blau and Duncan or Wisconsin traditions relies on survey data to obtain occupational responses. Therefore, it should be expected that a certain percentage of replies on occupational expectation and aspiration questions would consist of responses that cannot be used with the traditional occupational scales. Nevertheless, this problem is seldom mentioned in the status attainment literature, leading us to believe that non-response is being ignored. Clearly, future research must take account of the phenomenon of vocational indecision if we are to fully understand the career goal formation process. However, for now we will focus on the change in career goals for those who were able to respond with specific occupational goals in both years.

B. Overall Change

As can be seen from the results that were presented in Table 6.1, a large percentage (44.7%) of those who gave specific occupational goals in both years had not altered their goals over the one year period examined. However, an even greater percentage (55.2%) had shown a change. Approximately 28% of those who gave specific occupational goals in both years lowered their career aims, while another 27% raised them. These results provide us with evidence that a change in goals is indeed occurring. However, this test does not take into account the magnitude of the change, which will be examined in the fourth and final section of the analysis.

For now, only a few points of interest will be discussed. First, looking at the change variable highlights the importance of disaggregating data. If we simply look at the overall means of career goals at Time One and Time Two on the Blishen scale, we are led to believe that there is no change occurring. The mean of career goals at Time One is 56.2 and at Time Two is 56.1. However, when we disaggregate the data we find that a substantial amount of change is occurring. Because the change is occurring in both directions, it was obscured by the aggregate comparison.

Second, a closer look at the categories of change provides some interesting results. When we look at individual listings of goals in both years for those who had changed (whether lowered or raised goals), it is apparent that the magnitude of the change ranges from the minute to the very large. Also, the average values of career goals for each of the three levels of change give some indication as to the factors which may play a role in the change. These values are presented in Table 6.2. The mean Blishen score of Time One goals that were lowered a year later is 60.7. This compares to the mean score of 56.2 for all those answering with specific occupations at Time One. Also, 74.4% of those who lowered their goals were aiming higher than the sample mean in Time One. Thus, while on average, youth at Time One were aiming high, those who lowered their career goals were aiming somewhat higher.

When we consider those whose goals stayed the same in both years, the average level of goals is 59.9, and 68.1% of these youth are aiming higher than the sample mean at Time One. While still aiming high on average, youth who held their goals firm were somewhat closer to the total average at Time One than those who had lowered their goals. In contrast, those who raised their goals started out, on average, much lower than everyone else. The mean Blishen score of Time One goals that were raised a year later is 45.5. This is substantially lower than the mean score of 56.2 for everyone at Time One. Also, only 32.2% of those who had raised their goals were aiming higher than the sample mean at Time One. This is in sharp contrast to the two other groups.

This analysis highlights the importance of using appropriate statistical techniques in Part Four of the analysis where the *nature* of the change over time will be examined. The results reported above indicate that the change in career goals is *in part* a function

TABLE 6.2 Mean Values of Goals at T1 For Each Level of Change

Change	Mean Blishen Score	Standard Deviation
1)Goals Lowered	60.654	14.185
2)Goals the Same/No Change	59.915	19.273
3)Goals Raised	45.521	11.182
Total Sample at Time One	56.221	17.276

of the level of goals at the outset. On average, those who had lowered their goals had started with aims that were somewhat higher than the sample as a whole. In contrast, those who had raised their goals had, on average, started with aims that were substantially lower than the sample as a whole. In Part Four, statistical techniques which can separate statistical artifacts from real change attributable to the independent variables will be used.

C. Summary and Conclusions

Three main findings emerge from the analysis presented in this chapter. First, enough change has occurred in the 12-month period to warrant searching for some of the determinants of change in the final phase of the analysis. Second, the pattern of change could reflect regression towards the mean; hence, analyses that control on Time One levels of career goals are necessary in the examination of the change. Finally, a substantial number of respondents experienced career indecision as demonstrated by their failure to give specific answers to questions about occupational goals. Two hypotheses which posited that career indecision was related to background and labour market characteristics, much in the same way as a change in goals was hypothesized to be in the main research question of the thesis, were not supported by the data.

VII. Examination of the Change: Extension of the Status Attainment Model

The main research hypothesis states that the career goals of Edmonton youth will be negatively influenced by negative work / career related experience in the labour market. This final section of analysis addresses this hypothesis directly.[48] It builds on the prior analyses which presented the background for this chapter. Section One of the analysis, presented in Chapter Four, indicated that the overall level of career aspirations at Time One was unrealistic. The explanation of these aspirations in the framework of a traditional status attainment model was consistent with previous research. Section Two of the analysis, which was presented in Chapter Five, provided a descriptive account of the educational and work related experiences of youth one year after high school. In addition to providing some interesting results in their own right, this section allowed us to determine whether or not there was enough variation in Time Two experiences to allow for the testing of the main hypothesis. Finally, Section Three of the analysis, presented in Chapter Six, indicated that there was indeed a change in goals between Time One and Time Two. Contrary to what would be expected from a simple maturation effect, the change was occurring in different directions. This information provided the background from which to develop an extension of the status attainment model, in order to test the main hypothesis of the thesis.

A. Preliminary Analysis

In order to extend the traditional status attainment model to include labour market variables, it was necessary to find a measure of labour market success with sufficient variation in the sample. Unemployment (at some point during the previous year) was the obvious choice, since a full one-third of the sample had experienced unemployment at some time between the two phases of data collection. In addition, since there was little variation in the level of jobs respondents held, unemployment was the clearest, most straightforward measure of labour market success.[49]

---

[48] The analysis presented in this chapter is limited to those respondents who gave a specific occupational goal in both years (N=427). A discussion and analysis of missing data on occupational goals was presented in Chapter Six. In general, it was found that those who had missing data on goals did not differ in any systematic way from those who were able to give specific occupational goals.

[49] Although underemployment is another measure often used by researchers to

In order to be consistent with the previous analysis, and to demonstrate how the status attainment model could be improved, the analysis proceeded with an extension of the path model presented in Chapter Four. A dichotomous measure of whether or not the respondent had experienced unemployment was placed after occupational aspirations at Time One, and a final dependent variable, occupational aspirations at Time Two, was added. This extended model was first tested separately for females and males (Figures 7.1 and 7.2), since the earlier results (Chapter Four) indicated that the status attainment model operated differently for males and females. Specifically, academic performance positively influenced the occupational aspirations of boys, but did not have a significant effect on the aspirations of girls.

The use of the dichotomous measure of unemployment in Figures 7.1 and 7.2 deserves some comment. Treating unemployment as a dependent variable in one of the multiple regression equations used in estimating the path model violates the assumption of homoscedasticity which is basic to the standard regression model. Homoscedasticity refers to the condition in which the variation around the regression line is constant for all values of the independent variable. A dichotomous dependent variable is heteroscedastic because its variation depends on the variation of the independent variable. As a result of this heteroscedasticity, the estimate of the slope will still be unbiased, but the estimate of the standard error of the slope becomes downwardly biased. Therefore, there will be situations where the t-statistic will lead you to reject the null hypothesis when you should not.

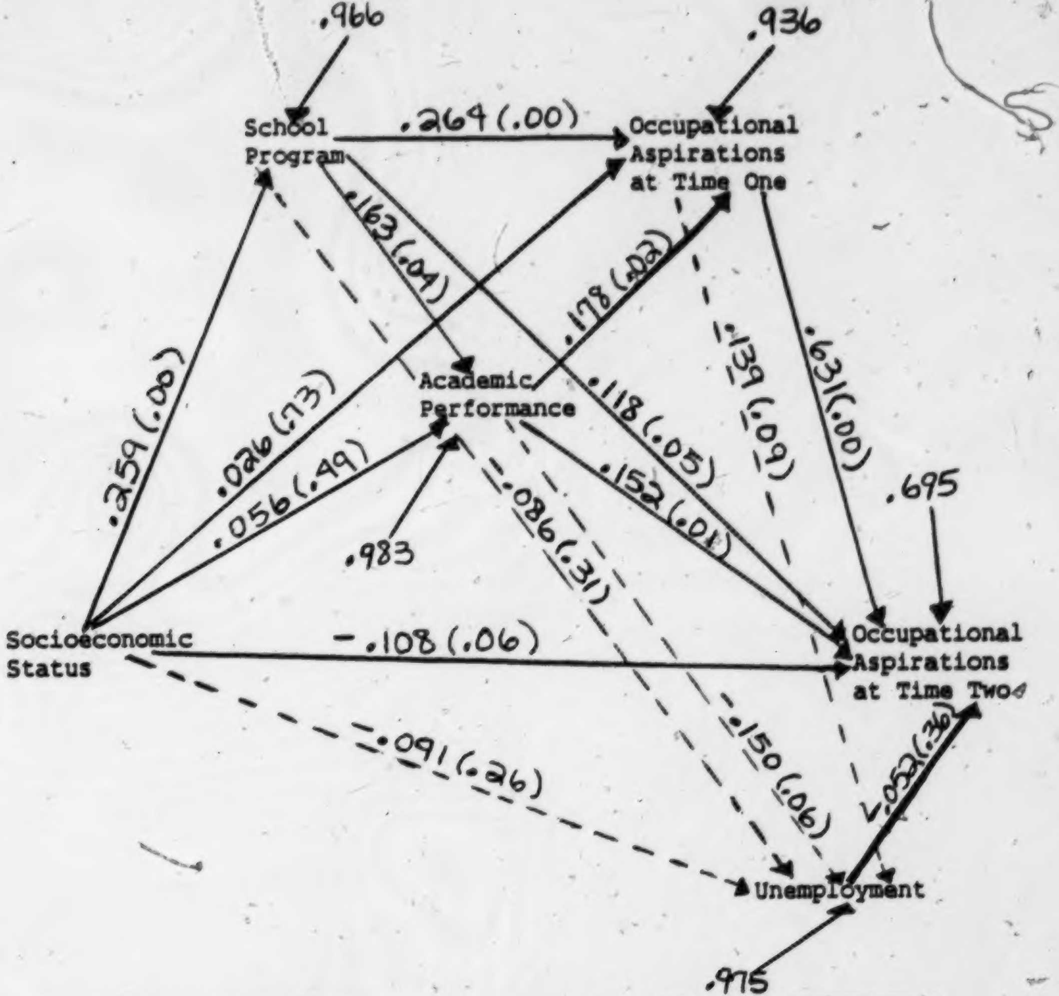
In order to alleviate the problems associated with a dichotomous dependent variable, the appropriate method would be to use logistic or probit regression.[50] Logistic regression solves the problem of heteroscedasticity by transforming the dependent variable into a symmetric measure. The alternative to logistic regression is probit

---

[49](cont'd) gauge labour market success or failure, it was not considered for use here because it is more applicable to studies of post-secondary graduates.

[50] Another solution would be to replace this dichotomous variable with a measure of the number of weeks unemployed. Those who had not been unemployed would be assigned a score of zero. This solution was experimented with and similar (although slightly weaker) results were obtained. However, it was decided that this measure would be inappropriate to use in a regression model because it is too highly skewed. About two-thirds of the sample have been unemployed "0" weeks, while a small minority reported long periods of unemployment. Therefore, the dichotomous measure of unemployment was selected as the most appropriate measure for this initial extension of the status attainment model.

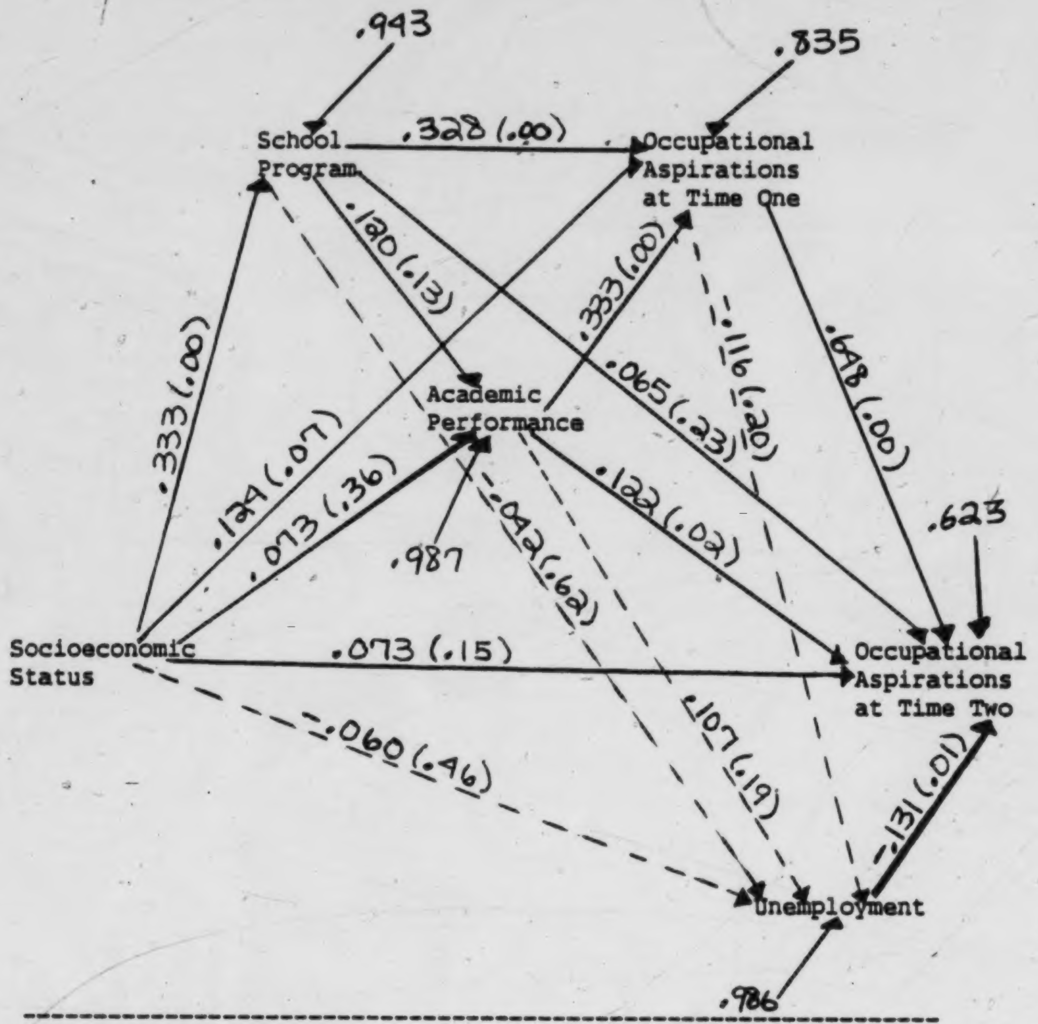
FIGURE 7.1 Extended Status Attainment Model of Occupational Aspirations at Time Two for Females Only


.966
.936
School Program
.264 (.00)
Occupational Aspirations at Time One
.163 (.04)
.178 (.02)
.259 (.00)
.026 (.73)
.056 (.49)
Academic Performance
.983
.118 (.05)
-.139 (.09)
.631 (.00)
.152 (.01)
-.086 (.31)
.695
Socioeconomic Status
-.108 (.06)
Occupational Aspirations at Time Two
-.091 (.26)
-.150 (.06)
-.053 (.36)
Unemployment
.975

( )Significance level.

The model explains 51.7% of the variance in the Time Two occupational aspirations of females (N=163).

FIGURE 7.2 Extended Status Attainment Model of Occupational Aspirations at Time Two for Males Only


.943
.835
School Program
.328 (.00)
Occupational Aspirations at Time One
.120 (.13)
.333 (.00)
-.116 (.20)
.698 (.00)
.333 (.00)
Academic Performance
.065 (.23)
.124 (.07)
.073 (.36)
.987
-.042 (.62)
.122 (.02)
.623
Socioeconomic Status
.073 (.15)
Occupational Aspirations at Time Two
-.060 (.46)
-.107 (.19)
-.131 (.01)
Unemployment
.986

( )Significance level.

The model explains 61.2% of the variance in the Time Two occupational aspirations of males (N=178).

regression which trys to set up the dependent variable in the form of a Z-score. However, although these are the appropriate methods to deal with a dichotomous dependent variable, the use of regular regression techniques to estimate the paths will still indicate whether or not there is a relationship, and thus whether or not it would be useful to attempt the modelling with logistic or probit regression. As can be seen in Figures 7.1 and 7.2, none of the variables examined have a significant ($p<.05$) effect on unemployment. Since our main concern is not with the predictors of unemployment but, rather, with the influence of unemployment on career goals at Time Two, regular regression techniques will be employed.

Figure 7.1 shows that the occupational aspirations of females remain fairly stable over time, as indicated by the path of .631. The expected negative influence of unemployment is observed, but does not reach statistical significance. Also, the influence of school program on academic performance, and the influence of academic performance on occupational aspirations, is significant in the extended model, unlike in the basic model. This change is probably due to the different sample sizes used in estimating the two models. Additional missing data were encountered because of the introduction of Time Two variables in the extended model. In any case, it opens up the possibility that the previously identified interaction effect is no longer present for the sample used in the extended model. Like the previous model, the extended model explains more of the variance for males (61.2%) than it does for females (51.7%).

Figure 7.2 shows that the occupational aspirations of males are also very stable over time (beta=.648). However, in this case the negative influence of unemployment on aspirations at Time Two (beta=-.131) is significant. This result supports the main hypothesis of the thesis. Occupational aspirations are being lowered in response to negative experience in the labour market. However, the analysis cannot be concluded here, because two questions remain. First, we need to know if the results differ when we control for whether or not the respondents continued their education in Time Two. This addresses the secondary hypothesis of the thesis which asserted that the negative influence of the labour market on Time Two aspirations would be stronger for the labour force group. It was argued that those who continued their education would function like a control group because they were not entering the labour market on a full-time basis. Second, we need to do a formal test for interactions to see if this extended model still warrants a separate presentation for males and females.

Regarding the first question, it was found that the direct effect of whether or not the respondent continued in school did not significantly influence Time Two aspirations. Then, in order to determine if there was an interaction effect, the model was run separately for those who continued their education and those who directly entered the labour force. In all cases, for both males and females, the influence of unemployment on Time Two aspirations was negative. However, it was significant only in the case of males who continued their education. For both males and females, t-tests for differences in slopes were done to see if the slope of this relationship differed between the labour force group and the group who continued their education. These tests indicated that there was no interaction.

Thus, the influence of unemployment on Time Two career goals was the same for both groups. This result is contrary to our hypothesis that the labour force group would be the most affected by negative labour market experiences. It appears that youth remaining in school are just as likely to be discouraged by negative labour market experiences as are youth who are already in the labour force. The lack of a difference between these two groups may have its basis in the large percentage of respondents who returned to school. If returning to school was a method of dealing with a difficult labour market for some of these youth, then the similar reactions of both groups are not so surprising. This explanation is supported by statistics which indicate that post-secondary enrolments in Alberta have been characterized by yearly increases in the 1981-82 to 1985-86 period (Statistics Canada, 1987:77), and unlike the increases seen in the 1970s, these increases cannot be explained by demographic changes in the youth population.

The above finding indicates that a separate analysis of the labour force group, as suggested in Chapter Five, is not warranted. Therefore, the analysis will proceed with the labour force group and the group who returned to school together. However, one question still remains. We need to know if the extended model still warrants the separate treatment of males and females. A formal test for interaction was done by including the dummy variable for gender along with three interactions terms (cross-product terms of the independent variables) in the multiple regression equations used to estimate the path models. If the slope of the cross-product term in a regression equation is significant, it tells us that there is statistical interaction. In other words, "the slope of the relationship between the dependent variable and one of the independent variables changes as the levels of the other variables are varied" (Agresti and Finlay, 1986:368).

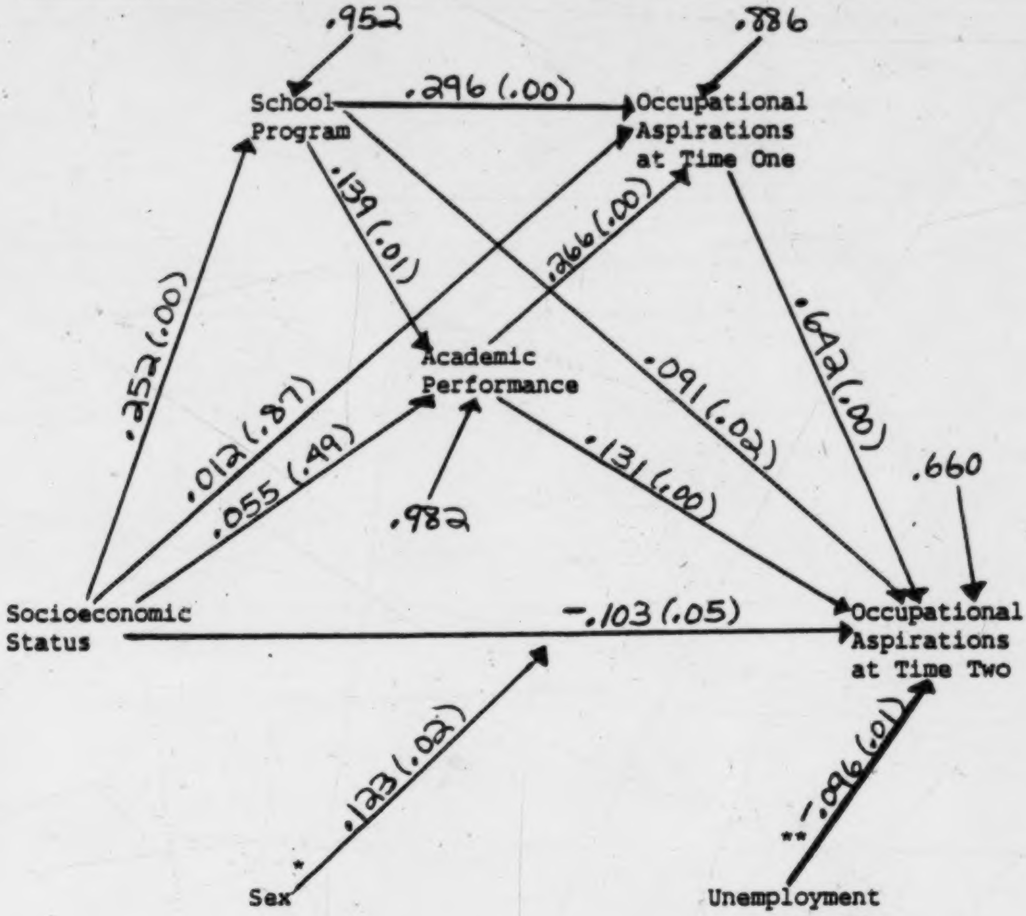
The three interaction terms were included for the following reasons. First, the interaction previously found in the basic model had disappeared. Therefore, a cross-product term with gender and academic performance was introduced in order to determine if the influence of academic performance on occupational aspirations at Time One still differed by gender. Second, an interaction term was created with gender and socioeconomic status because, in the separate models, the slopes of the relationship between socioeconomic status and occupational aspirations at Time Two were of opposite signs. Finally, an interaction term was created with the cross-product of gender and unemployment. The possibility of interaction was suspected here because the relationship between unemployment and Time Two aspirations was significant only for males in the separate models. None of the other slopes in the male and female models differed enough to warrant further interaction terms.

The results of this test of interaction effects indicated that only one was significant. The influence of socioeconomic status on occupational goals at Time Two is negative for females, whereas it has only an insignificant positive influence for males. As a result of this analysis, the model was rerun on the total sample, this time including only the one significant interaction term, in order to estimate the paths for the final model.

B. The Final Model

The final model is presented in Figure 7.3. It represents the results for the total remaining sample (N=341). Unlike the basic model presented in Chapter Four, this extended model is operating similarly for males and females, except for the one gender interaction identified above. Further, this interaction effect does not involve the main area of concern in this section, which is the influence of unemployment on Time Two

FIGURE 7.3 Extended Status Attainment Model of Occupational Aspirations at Time Two for the Total Remaining Sample (Final Model)


.952
.886
School Program
.296 (.00)
Occupational Aspirations at Time One
.252 (.00)
.139 (.01)
.266 (.00)
Academic Performance
.012 (.87)
.055 (.49)
.982
.091 (.02)
.131 (.00)
.692 (.00)
.660
Socioeconomic Status
-.103 (.05)
Occupational Aspirations at Time Two
.123 (.02)
*
Sex
**
-.096 (.01)
Unemployment

* This coefficient represents the slope of the interaction term (Sex.Socioeconomic Status). Since females were coded 0 and males 1, the slope of socioeconomic status on occupational aspirations at Time Two is for females; we get the slope for males by adding the slope of the interaction term.

** Unemployment is treated as exogeneous here because none of the previous variables in the model were found to influence it.

( )Significance level.

The final model explains 56.5% of the variance (N=341).

aspirations. Therefore, the extended status attainment model is best presented with males and females together, and with the one interaction effect modelled.[51] This method of presentation is more accurate statistically, than are separate models for males and females.

This final model, which represents an extension of the basic status attainment model, was developed to test our main research hypothesis. It was hypothesized that the career goals of Edmonton youth would be negatively influenced by negative work/career related experience in the labour market after high school. The extended model tests this hypothesis by assessing the effect of unemployment on occupational aspirations at Time Two, while controlling for occupational aspirations at Time One.[52] Although temporal autocorrelation is often problematic in this type of time series analysis, it did not present a problem in this case, because the negative influence of unemployment on Time Two goals is clearly significant, even when Time One goals are controlled. Thus, the main hypothesis of the thesis is supported. The final model explains 56.5% of the variation in occupational aspirations at Time Two.

As can be seen in Figure 7.3, having been unemployed in the past year has a direct, negative (-.096) influence on Time Two aspirations. The unstandardized slope of -3.54 indicates that those who had experienced unemployment in the past year, on average, lowered their career goals by 3.5 points on the Blishen scale. Unemployment is treated as exogenous in the final model because no significant relationships were observed with any of the previous variables. Thus, none of the previous variables in the model have any indirect effects on Time Two aspirations via their influence on unemployment.[53]

A second relationship to note in this extended model is that between occupational goals at Time One and occupational goals at Time Two. The influence of

---

[51] See Hayduk and Wonnacott (1980) for a discussion of the visual and verbal presentation of multiple regression interaction effects.

[52] As indicated in Chapter Six, the pattern of change in occupational goals over the one year period in between data collections could be attributed to regression towards the mean. Therefore, in order to determine if any of the change is in fact due to the effect of unemployment, occupational goals at Time One must be controlled.

[53] The prior variables in the model were regressed on unemployment for the purposes of estimating the path model. However, no relationships were indicated by the paths to unemployment.

Time One aspirations is entirely direct, and fairly strong as indicated by the path coefficient of .642. This result indicates that in general, there is an overall stability in the level of occupational aspirations over time. Other researchers have also found an overall congruency in the level of occupational goals over time (Smith, 1980: 126). Nevertheless, as the model presented here shows, negative labour market experiences can downwardly influence otherwise generally stable goals.

Finally, Figure 7.3 shows that background influences also affect the level of occupational aspirations at Time Two. Socioeconomic status is once again working mainly indirectly through its influence on school program. However, the interaction effect which was identified indicates that the direct effect of socioeconomic status is operating differently for males and females.[54] In Figure 7.3 the slope of the gender/socioeconomic status interaction term is indicated on the path from sex to the path between socioeconomic status and occupational aspirations at Time Two. Given how gender was coded (females=0; males=1) the path coefficient for the direct influence of socioeconomic status on occupational aspirations at Time Two is for females.

Contrary to expectations, socioeconomic status is negatively related to the occupational aspirations of females at Time Two (-.103). The reasons for this finding are not readily apparent. Perhaps, females from the higher social classes are relying on non-career ways to maintain their social status (e.g. through marriage). In order to calculate the influence of socioeconomic status on the Time Two aspirations of males, we must add the standardized slope of the interaction term to the standardized slope of the relationship for females (.123 + -.103 = .020). The resulting coefficient of .020 indicates that the direct effect of socioeconomic status on the occupational aspirations of males at Time Two is negligible. Finally, school program and academic performance both have positive direct and indirect influences on occupational aspirations at Time Two.

---

[54] Neither gender nor the gender/socioeconomic status interaction term had any significant effect on anything else in the model. Therefore, only the one significant interaction effect is modelled in the presentation of the final model.

C. Summary and Conclusions

This chapter has presented a successful extension of the status attainment model, and a confirmation of the main hypothesis of the thesis. The Edmonton high school youth analyzed here lowered their aspirations in the face of negative labour market experience. Despite overall stability in occupational goals over time, there is a clear negative influence of unemployment on occupational aspirations at Time Two, controlling for aspirations at Time One.

This result, while interesting in itself, is important in other respects. This finding has demonstrated that labour market variables can be successfully incorporated into status attainment models, eliminating one of their major shortcomings: the assumption of an open labour market. The results presented here also leave many questions for future research, such as what is the long-term effect of experiencing barriers to occupational goals as the result of a recessionary market. Further discussion of these results and their implications will be presented in the concluding chapter.

VIII. Conclusion

In this final chapter we will present a brief summary of the main findings, followed by a discussion of the results. Finally, we will look at the implications of these findings for future research in the area of career aspirations and status attainment.

A. Summary of Findings

The foregoing analyses were based on a study of the career aspirations of Edmonton high school youth in the midst of an economic recession. The data were collected at two points in time. The first survey was conducted in May of 1985 when the youth were in their final year of high school. The second survey took place in May of 1986. As was seen from the first section of analysis, presented in Chapter Four, the overall level of career aspirations at Time One was unrealistic. Youth on the verge of completing high school were aiming, on average, much higher than warranted by the actual distribution of jobs in the Canadian labour force. Similar results have been observed by other researchers (Fottler and Bain, 1984:241-42; Baker, 1985), suggesting that unrealistic choice is a common feature of the aspirations of youth at this age.

The explanation of these Time One aspirations in the framework of a traditional status attainment model was also consistent with previous research. The main conclusion derived from the existing status attainment literature is that the class structure is being reproduced by a system in which social origins operate indirectly on attainments through their influence on education. In the present case, it was found that the influence of social origins on career goals was mainly indirect through their influence on school program. A gender interaction effect resulted in the basic model working better for males than for females. Academic performance positively influenced the occupational aspirations of boys, but did not have a significant effect on the aspirations of girls. This result can be explained, in part, by the abundance of stereotypical aims among girls which resulted in their having less variation in aspirations than boys.

The second major section of analysis, presented in Chapter Five, provided a descriptive account of the educational and labour market experiences of these youth in the year between the two surveys. In this section, it was found that the large majority

(70.8%) of the respondents continued their education, either by returning to high school or going on to some form of post-secondary school. Both the decision to continue education and the type of school entered were not random phenomena, being related to individual, socioeconomic background, and work experience variables.

Continuing education did not preclude labour force participation. Nevertheless, the group who continued their education devoted substantially less time to labour force activity than the group who did not return to school. In spite of this difference, both groups found themselves entering the same relatively limited youth labour market. Both were in similar, relatively low-level occupations, and had experienced unemployment to the same extent. Although both groups were aware of the general negative condition of the labour market at the time, they were less willing to accept that it may affect them personally. Nevertheless, the two groups did differ in some respects. Most importantly, those in the labour force group were aiming substantially lower in terms of career aspirations at Time Two, compared to those who continued their education.

Turning to the third section of analysis in Chapter Six, it was found that a substantial number of respondents experienced career indecision as demonstrated by their failure to give specific answers to questions about occupational goals. In general, it was found that those respondents who did not give a specific occupational goal in one or both years did not differ in any systematic way from those respondents who were able to specify occupational aspirations in both years. Nevertheless, a finding that was of interest was the fact that there was more indecision in Time Two than Time One. Perhaps a heightened awareness of the negative condition of the labour market, or in contrast, the awareness of more career options with further education, served to increase uncertainty. Although the phenomenon of career indecision among high school youth has been documented by other researchers (e.g. Breton, 1972; Jepsen, 1975), most status attainment literature neglects this aspect of career choice.

Chapter Six also indicated that there was enough change in career goals in the 12-month period between the two surveys to warrant searching for some of the determinants of change in the final phase of analysis. This change in aspirations was of a pattern that could be attributed to regression towards the mean; hence, analyses that controlled on Time One levels of career goals were necessary. Thus, these preceding analyses provided the background information from which to develop an extension of the basic status attainment model. The development of this extended model, in the final section of analysis, involved the addition of unemployment (as a measure of negative labour market experience between Time One and Time Two), and career aspirations at Time Two. This allowed us to determine whether or not negative labour market experience resulted in a downward change in Time Two aspirations.

In support of the main hypothesis, it was found in Chapter Seven that despite overall stability in occupational goals over time, there is a clear negative influence of unemployment on occupational aspirations at Time Two, controlling for aspirations at Time One. Edmonton high school youth lowered their aspirations in the face of negative labour market experience. However, the secondary hypothesis which argued that this effect would be stronger for those who entered the labour force on a full-time basis, was not supported. It appears that limited opportunities in the labour market at the time were equally disheartening to both the labour force group and the group who continued their education. If returning to school represents a way of dealing with a difficult labour market for some of these youth, then the absence of a difference between the two groups is not so surprising. As mentioned earlier, this explanation is supported by the increase in post-secondary enrolments during this period which cannot be explained by demographic changes in the youth population.

B. Discussion

At the outset of the thesis, a very specific question was identified: are the career goals of youth modified as a result of initial work/career related experiences after high school? The analysis that followed provided an affirmative response to this question. It was shown that negative labour market experience resulted in lowered occupational aspirations. In itself, this is an important finding, given the role that aspirations play in the attainment process. Previous research has demonstrated that aspirations both directly influence later attainments, and serve to mediate the effect of socioeconomic background on attainments (e.g. Sewell; Haller and Portes, 1969:88,90; Sewell and Hauser, 1972:854, 858-59; Haller and Portes, 1973:62). However, this finding also has much broader theoretical implications.

Specifically, it has shown that labour market variables can be incorporated into status attainment models, thus eliminating one of their major shortcomings: the assumption of an open labour market. Although status attainment research has generated an impressive record of findings which have not been seriously challenged, it has long been recognized that the neglect of labour market variables represents a very serious shortcoming in the theory.

Previous research in the area of status attainment has, for the most part, been conducted in times of economic prosperity, which may explain why this tradition has been able to ignore the role of labour market variables for such a long period of time. The false assumption of an open labour market presents less of a problem when there is an abundance of occupational opportunities. However, when the economy is in a period of decline, labour market variables may take on a much more important role in the status aspiration and attainment process, since the barriers that the labour market places on individuals are that much greater.

Research conducted in Britain in periods of recession has found that labour market factors come to assume the predominant role in the explanation of where youth end up in terms of the class structure or the status hierarchy (Ashton and Maguire, 1986b). Wallace argues that the recent restructuring of employment has resulted in 'fractures' in the process of social and cultural reproduction (1987:224-25). Thus, it appears that a consideration of individual and socioeconomic background factors will no longer suffice as an explanation of the level of peoples' attainments. The same conclusion is also hinted at with the present research. The experience of unemployment could not be predicted by any of the individual or socioeconomic background factors in the model, yet this experience resulted in an overall lowering of aspirations for those who encountered it.

We would have expected, based on previous status attainment research and also the reproduction literature, that socioeconomic status would have an effect on aspiration change via a higher probability of unemployment for those from lower socioeconomic status backgrounds. However, this did not happen. While this is contrary to the expectations of theories which, for the most part, developed in times of relative economic prosperity, it is consistent with research which has been conducted in recessions (Ashton and Maguire, 1986b; Wallace, 1987).

Recessions may be altering previously established relationships because they represent an extreme set of circumstances. When unemployment levels are very high the experience of unemployment is more likely to affect people at all levels of the class structure. Conversely, when the economy is in a period of rapid expansion one would expect everyone to benefit. Whether or not this is actually the case is a question for further research. Nevertheless, it appears that both extremes of the economic spectrum have the capacity to reduce inequalities either by blocking the opportunities of all groups or by removing the barriers for all groups.

Nonetheless, even in periods of economic extremes, we cannot abandon the critical insights of reproduction and neo-Marxist theories. Although research has shown that labour market variables appear to assume predominance in recessionary times, social origins are still influencing choices and attainments. The finding in the status attainment literature which indicates that education is the main determinant of attainment has often been used to conclude that we live in a meritocracy characterized by equality of opportunity. However, this conclusion is false insofar as it neglects to point out that educational achievement is to a large degree predictable on the basis of social class. In the present case, even though the overall level of aspirations was high for all groups of youth, socioeconomic status had an influence on the Time One aspirations of youth through its influence on school program. Therefore, although everyone was equally likely to experience unemployment, and suffer the resulting decrease in goals, it must be remembered that youth from the lower social classes started out aiming somewhat lower than youth from more privileged backgrounds.

Therefore, there is certainly evidence to support the reproduction of class thesis. However, the process by which this occurs is not as clear-cut as once thought. Contrary to Willis (1977) who argues that lower class youths are socialized in the school to accept lower class jobs, it was found here that despite the positive effect of social class on aspirations, overall, most youth are leaving high school with unrealistically high goals. This indicates that youth are being socialized to accept the belief in equality of opportunity. This view is supported by other research which has found that youth tend to aim unrealistically high at this age (Fottler and Bain, 1984; Baker, 1985).

This initial high level of goals has probably been a feature of the aspiration process since at least the 1950s. Although periods of recession have occurred, the post-World War II period has been characterized by a general economic expansion and a large-scale increase in secondary education among North American youth. Both factors are likely to have contributed to the high levels of goals which have been observed. In any case, we are left with a situation in which the aspirations of high school students are much higher than the actual occupational distribution can accomodate. Some of these youth will reach their goals, and previous status attainment research suggests that socioeconomic status will play a role in determining which individuals do so. However, many of these youth will face disappointment.

The realization that many youth will not attain their goals, due to constraints in the structure of the labour market, opens up a whole new area for inquiry: What eventually happens to these high aspirations? Status attainment research has largely ignored this question, but would benefit from a closer look at this process. The research presented in this thesis has begun to address this question directly by looking at how the labour market modifies aspirations. The findings have clearly demonstrated that the career aspirations of Edmonton youth are negatively influenced by negative labour market experience (unemployment), net of other variables which we know make a difference.

While negative labour market experience serves to bring the aspirations of youth more in line with reality than they might otherwise be, this is happening before these youth have had a chance to take steps towards the achievement of their goals. Since previous research has shown that aspirations have an independent effect on occupational attainment, it appears that an early dampening of aspirations due to things such as widespread unemployment may result in lower levels of attainment for many youth. Herzog has argued that occupational preferences at this stage of the life-span probably have more bearing on later attainments than do preferences at any other point, because it is at this critical stage that youth make decisions which will set the course for much of their future lives (1982:2).

Thus, the high level of goals which cannot be met in the current occupational structure present a quandary. Although the goals of many youth will not be attained, the early experience of barriers may result in lowered achievement for otherwise very capable and promising youth. Perhaps the solution is to provide youth with more adequate labour market information. The provision of a more complete pre-graduation training program about education and occupations would be helpful. Youth of all backgrounds must be given adequate information if they are to make intelligent career choices based on their abilities and the level of effort that they are willing to expend.

In summary, the main finding, which demonstrated that negative labour market experience resulted in lowered occupational aspirations among Edmonton high school leavers, has highlighted the necessity of rethinking earlier theories of inequality and the transition from school to work. Consistent with the initial intent of the thesis, the results presented support the conclusion that labour market variables can and must be incorporated in status attainment research. It was also emphasized that status attainment research and theory must take a more critical look at the persistence of differences based on ascriptive characteristics. However, the results also raised a whole new set of questions about the process by which aspirations are modified for the many youth who will not attain their initial level of aspirations. The research presented in this thesis has begun to address this issue, which has largely been ignored in the status attainment literature, by identifying labour market experience as one of the crucial variables in the process.

C. Suggestions for Further Research

It should be clear from the above discussion that future research in Canada must be based on a more comprehensive approach than that provided by the traditional status attainment paradigm. Canadian researchers must combine the insights of various theories into a more complete explanation of the status attainment process. It was initially argued that this can best be accomplished by a consideration of labour market variables along with a more critical view of the attainment process. As Blakely and Harvey point out, "[t]he concept of 'markets' is relevant to this status attainment process insofar as changes in labour supply-demand imbalances over time: 1) alter the relationship between these status determinants and status outcomes; and 2) differentially affect the relationship between status determinants and status outcomes for different groups" (1988:25). However, a consideration of the results presented in this thesis has identified yet another area for improvement in the status attainment paradigm. Status attainment research would also benefit from a closer look at the processes by which aspirations may be modified.

The original high level of goals expressed by youth along with the current distribution of occupations in the labour market means that the majority of youth studied here will not attain their goals and will have to somehow deal with the realities they face. There is a need to further explicate the relationship between aspirations and attainments for both those who do attain their goals, and particularly for the many who do not. In the case of the latter, the present research has begun to address this issue by identifying an important labour market effect on the early modification of career aspirations. Other researchers, working in Britian, have found that aspirations continue to be modified to conform to the occupations that people are able to enter (Roberts, 1968:174; Wallace, 1987:37-39,126). Certainly, there are also other factors remaining to be identified which affect the modification of aspirations.

Nonetheless, the modification of aspirations to conform to attainments is not the only possible way of dealing with the situation. The way in which unattainably high aspirations are dealt with could entail a number of possibilities. Perhaps goals are forgotten or rationalized away. On the other hand, they may be maintained, resulting in dissatisfaction with the careers that these people are able to enter. Aspirations could also eventually be transferred to the goals people hold for their children, or simply replaced in importance by goals in other areas of peoples' lives. Youth hold multiple aspirations for the future; if they fail to achieve their aspirations in one area of their lives (e.g. career), they may concentrate on fulfilling other goals which can be attained.

Although the social psychological literature has addressed some of these issues by viewing occupational choice as an ongoing process, it has tended to do so by isolating the psychological aspects of career choice from the structural context in which they occur. It is argued here that a better method of approaching these issues would be to incorporate some of these questions into a more comprehensive sociological approach to status attainment. However, the possibility of doing so rests on the continuation of efforts towards increasing the amount of longitudinal research which is conducted.

Many questions about the nature of the relationships involved in the occupational aspiration and attainment process cannot be addressed with single-time period or cross-sectional designs. This is true of the main research question addressed in this thesis. Although these designs may have identified a relationship between aspirations and unemployment, neither could have provided a definitive answer to our research question. It was the longitudinal nature of the design which allowed for the present conclusion that the aspirations of Edmonton youth are modified as a result of negative labour market experience. Thus, the dynamics of the questions we are addressing really necessitate a longitudinal approach.

In addition to studying aspirations within a longitudinal framework, it is also necessary to continue to examine the persistence of gender differences in the aspiration and attainment process. Although males and females did not differ in their response to negative labour market experiences, there were enough gender differences found elsewhere in the analysis to warrant future exploration. In particular, the presence of gender interactions which were not readily explicable highlight the need to understand the different processes which operate in the formation of aspirations for males and females.

Other issues to be addressed in the future pertain to whether or not there are any long-term effects of experiencing barriers to goals as a result of a recessionary labour market. Previous research suggests that there are (e.g. Elder and Liker, 1982). In any case, the present research has opened up questions regarding the extent to which our aspirations and later attainments are the result of the particular labour market that we face at the point of entry into work. These questions can best be explored by longitudinal comparisons across various local labour markets. The data from this study were taken from a larger, longitudinal study of youth in three Canadian cities (the Youth Employment Study). The presence of additional data from Toronto, a city which enjoyed economic prosperity when Edmonton suffered its recession, provides an excellent opportunity for a future comparison of the effect of local markets on the aspirations of youth.

The importance of local labour markets in the study of aspirations and attainments is further underscored by the changing occupational and industrial structure characteristic of modern industrialized society. These changes may serve to exacerbate already existing differences between local labour markets. Other researchers have already found evidence to indicate that the negative consequences of industrial and occupational restructuring are more likely to affect new entrants into the labour market (Myles, Picot and Wannell. 1988:105). In any case, it is clear from the research presented here that the labour market can place definite constraints on youth. Nevertheless, there are clearly choices within those constraints. Future research must continue to search for the determinants of which path youth choose to follow.

Bibliography

Agresti, Alan and Barbara Finlay. *Statistical Methods for the Social Sciences.* (2nd Ed.), (1986), San Francisco: Dellen Publishing Company.

Alexander, Karl L. and Bruce K. Eckland. "Sex differences in the educational attainment process." *American Sociological Review.* 39(1974):668-82.

Alexander, Karl L. and Bruce K. Eckland. "Basic attainment processes: a replication and extension." *Sociology of Education.* 48(1975):457-95.

Alexander, Karl L., Bruce K. Eckland and Larrry J. Griffin. "The Wisconsin model of socioeconomic achievement: a replication." *American Journal of Sociology.* 81(1975):324-42.

Anisef, Paul, Etta Baichman, David Northrup, Darla Rhyne and Robert Tibert. *Models and Methodologies Appropriate to the Study of Outcomes of Schooling in Ontario's Multicultural Society.* (1986) Toronto: Ontario Ministry of Education.

Anisef, Paul, J. Gottfried Paasche and Anton H. Turrittin. *Is the Die Cast?: Educational Achievements and Work Destinations of Ontario Youth.* (1980) Ontario: Ministry of Colleges and Universities.

Ashton, David N. *Unemployment under Capitalism: The Sociology of British and American Labour Markets.* (1986) Great Britain: Harvester Press.

Ashton, David N. "Sources of variation in labour market segmentation: A comparison of youth labour markets in Canada and Britain." *Work, Employment and Society.* 2(1988):1-24.

Ashton, David and M.J. Maguire. *Labour Market Segmentation and the Structure of the Youth Labour Market.* Paper presented to the British Sociological Association. (1986a) Loughborough: March, 1986.

Ashton, David and M.J. Maguire. *Young Adults in the Labour Market.* Research Paper No. 55. (1986b) University of Leicester: Department of Employment.

Baker, Maureen. *What Will Tomorrow Bring?: A Study of the Aspirations of Adolescent Women.* (1985) Ottawa: Canadian Advisory Council on the Status of Women.

Blakely, John H. and Edward B. Harvey. "Market and non-market effects on male and female occupational status attainment." *Canadian Review of Sociology and Anthropology.* 25(1988):23-40.

Blau, Peter M. and Otis Dudley Duncan. *The American Occupational Structure.* (1967) New York: John Wiley and Sons, Inc.

Blau, Peter M., John W. Gustad, Richard Jessor, Herbert S. Parnes and Richard C. Wilcock. "Occupational choice: A conceptual framework." *Industrial and Labor Relations Review.* 9(1956):531-543.

Blishen, Bernard R. "A socio-economic index for occupations in Canada." *Canadian Review of Sociology and Anthropology.* 4(1967):41-53.

Blishen, Bernard R. and William K. Carroll. "Sex differences in a socioeconomic index for occupations in Canada." *Canadian Review of Sociology and Anthropology.* 15(1978):352-371.

Blishen, Bernard R., William K. Carroll and Catherine Moore. "The 1981 socioeconomic index for occupations in Canada." *Canadian Review of Sociology and Anthropology*. 24(1987):465-488.

Blishen, Bernard R. and Hugh A. McRoberts. "A revised socioeconomic index for occupations in Canada." *Canadian Review of Sociology and Anthropology*. 13(1976):71-79.

Boyd, Monica, John Goyder, Frank E. Jones, Hugh A. McRoberts, Peter C. Pineo and John Porter. *Ascription and Achievement: Studies in Mobility and Status Attainment in Canada.* (1985) Ottawa: Carleton University Press.

Boyd, Monica, Frank E. Jones, Hugh A. McRoberts, Peter C. Pineo and John Porter. "Status attainment in Canada: findings of the Canadian Mobility Study." *Canadian Review of Sociology and Anthropology*. 18(1981):657-673.

Breton, Raymond. "Academic stratification in secondary schools and educational plans of students." Reprinted from the Canadian Review of Sociology and Anthropology, 7:(1970), 253-269 in James E. Curtis and William G. Scott (Eds.), *Social Stratification in Canada*. (2nd Ed.), Ontario: Prentice-Hall, 1979.

Breton, Raymond. *Social and Academic Factors in the Career Decisions of Canadian Youth.* (1972) Ottawa: Department of Manpower and Immigration.

Brinkerhoff, Merlin B. and David J. Corry. "Structural prisons." *International Journal of Comparative Sociology*. 17(1976):261-274.

Campbell, Richard T. "Status attainment research: end of the beginning or beginning of the end?" *Sociology of Education*. 56(1983):47-62.

Clairmont, Don, Richard Apostle and Reinhard Kreckel. "The segmentation perspective as a middle-range conceptualization in sociology." *Canadian Journal of Sociology*. 8(1983):245-271.

Clairmont, Donald H., Martha MacDonald and Fred Wien. "A segmentation approach to poverty and low-wage work in the Maritimes.", 285-315 in John Harp and John R. Hofley (eds.), *Structured Inequality in Canada.*(1980) Scarborough, Ontario: Prentice Hall.

Crowder, David N. "A critique of Duncan's stratification research." *Sociology*. 8(1974):19-45.

Crysdale, Stewart. "Aspirations and expectations of high school youth." *International Journal of Comparative Sociology*. 16(1975):19-36.

Cuneo, Carl J. and James E. Curtis. "Social ascription in the educational and occupational status attainment of urban Canadians." *Canadian Review of Sociology and Anthropology*. 12(1975):6-24.

Curtis, James E. and William G. Scott. *Social Stratification in Canada.* (2nd Ed.), (1979) Ontario: Prentice-Hall.

Davis, Kingsley and Wilbert E. Moore. "Some principles of stratification." *American Sociological Review*. 10(1945):242-249.

Economic Council of Canada (ECC). *In Short Supply: Jobs and Skills in the 1980s.* (1982) Ottawa: Supply and Services Canada.

Economic Council of Canada (ECC). *Innovation and Jobs in Canada.* (1987) Ottawa: Supply and Services Canada.

Elder, Glen H., Jr. and Jeffrey K. Liker. "Hard times in women's lives: Historical influences across forty years." *American Journal of Sociology.* 88(1982):241-269.

Forcese, Dennis. *The Canadian Class Structure.* (3rd Ed.), (1986) Toronto: McGraw-Hill Ryerson Ltd.

Fottler, Myron D. and Trevor Bain. "Realism of occupational choice among high school seniors: implications for quality of work life." *Journal of Occupational Behavior.* 5(1984):237-251.

Gambetta, Diego. *Were They Pushed or Did They Jump?: Individual Decision Mechanisms in Education.* (1987) Cambridge: Cambridge University Press.

Garrison, Howard H. "Gender differences in the career aspirations of recent cohorts of high school seniors." *Social Problems.* 27(1979):170-185.

Gaskell, Jane. "Education and jobs for women.", 373-384 in Lorne Tepperman and James Curtis, *Readings in Sociology: An Introduction.* (1988) Toronto: McGraw Hill Ryerson Ltd.

George, P.M. and H.Y. Kim. "Social factors and educational aspirations of Canadian high school students.", 352-363 in James E. Gallagher and Ronald D. Lambert, *Social Process and Institution: The Canadian Case.* (1971) Toronto/Montreal: Holt, Rinehart & Winston.

Gerstein, Martin, Marilyn Lichtman and Judy U. Barokas. "Occupational plans of adolescent women compared to men: a cross-sectional examination." *The Career Development Quarterly.* 36(1988):222-230.

Gilbert, Sid. "The selection of educational aspirations.", 281-297 in Richard A. Carlton, Louise A. Colley and Neil J. MacKinnon (eds.), *Education, Change, and Society: A Sociology of Canadian Education.* (1977) Toronto: Gage Educational Publishing Ltd.

Gilbert, Sid and Hugh A. McRoberts. "Academic stratification and educational plans: a reassessment." *Canadian Review of Sociology and Anthropology.* 14(1977):34-47.

Ginzberg, Eli, Sol W. Ginsburg, Sidney Axelrad and John L. Herma. *Occupational Choice: An Approach to a General Theory.* (1951) New York: Columbia University Press.

Giroux, Henry A. "Hegemony, resistance and the paradox of educational reform." *Interchange.* 12(1981):3-26.

Goldthorpe, John H. *Social Mobility and Class Structure in Modern Britain.* (1980) Oxford: Clarendon Press.

Gottfredson, Linda S. "Circumscription and compromise: A developmental theory of occupational aspirations." *Journal of Counseling Psychology.* 28(1981):545-579.

Goyder, John. "Social mobility or status attainment, or social mobility and status attainment." *Canadian Review of Sociology and Anthropology.* 21(1984):331-343.

Guppy, Neil, Paulina D. Mikicich and Ravi Pendakur. "Changing patterns of educational inequality in Canada." *Canadian Journal of Sociology.* 9(1984):319-331.

Haller, Archibald O. "On the concept of aspiration." *Rural Sociology.* 33(1968):484-487.

Haller, Archibald O., Luther B. Otto, Robert F. Meier and George W. Ohlendorf. "Level of occupational aspiration: An empirical analysis." *American Sociological Review.* 39(1974):113-121.

Haller, Archibald O. and Alejandro Portes. "Status attainment processes." *Sociology of Education.* 46(1973):51-91.

Harvey, Edward B. "The changing relationship between university education and intergenerational social mobility." *Canadian Review of Sociology and Anthropology.* 21(1984):275-286.

Harvey, Edward B. and Ivan Charner. "Social mobility and occupational attainments of university graduates." *Canadian Review of Sociology and Anthropology.* 12(1975):134-149.

Harvey, Edward B. and Richard Kawla. "Occupational status attainments of university graduates: individual attributes and labour market effects compared." *Canadian Review of Sociology and Anthropology.* 20(1983):435-453.

Hayduk, Leslie A. and Thomas H. Wonnacott. "'Effect equations' or 'effect coefficients': a note on the visual and verbal presentation of multiple regression interactions." *Canadian Journal of Sociology.* 5(1980):399-404.

Hein, Carol A. *A Descriptive Study of Career Pathways in High School Students.* (1980) Laurentian University: Unpublished Master's Thesis.

Herzog, A. Regula. "High school seniors' occupational plans and values: Trends in sex differences 1976 through 1980." *Sociology of Education.* 55(1982):1-13.

Hiller, Harry H. *Canadian Society: A Macro Analysis.* (p.80), (1986) Scarborough, Ontario: Prentice-Hall Canada Inc.

Hogan, Dennis P. and Nan Marie Astone. "The transition to adulthood." *Annual Review of Sociology.* 12(1986):109-30.

Holland, John L. "A theory of vocational choice." *Journal of Counseling Psychology.* 6(1959):35-44.

Holland, John L. *Making Vocational Choices: A theory of Careers.* (1973) Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Horan, Patrick M. "Is status attainment research atheoretical?" *American Sociological Review.* 43(1978):534-41.

Hughes, Karen. *Gender, Education and Theories of Social Reproduction.* (1987) University of Alberta: Unpublished Paper.

Hunter, Alfred A. *Class Tells: On Social Inequality in Canada.* (2nd Ed.), (1986) Toronto/Vancouver: Butterworths.

Husen, Torsten. *The School in Question: A Comparitive Study of the School and its Future in Western Society.* (1979) Oxford: Oxford University Press.

Jenkins, Richard. *Lads, Citizens and Ordinary Kids: Working-class Youth Life-styles in Belfast.* (1983) London: Routledge and Kegan Paul.

Jepsen, David A. "Occupational decision development over the high school years." *Journal of Vocational Behavior.* 7(1975):225-237.

Kemper, Theodore D. "Marxist and functionalist theories in the study of stratification: Common elements that lead to a test." *Social Forces.* 54(1976):559-578.

Kennedy, Leslie W. and N. Mehra. "Effects of social change on well-being: Boom and bust in a western Canadian city." *Social Indicators Research.* 17(1985):101-113.

Kerckhoff, Alan C. "The status attainment process: Socialization or allocation?" *Social Forces.* 55(1976):368-381. .

Kerckhoff, Alan C. "The current state of social mobility research." *The Sociological Quarterly.* 25(1984):139-53.

Knottnerus, J. David. "Status attainment research and its image of society." *American Sociological Review.* 52(1987):113-121.

Krahn, Harvey. *A Study of the Transition from School to Work in Three Canadian Cities: Research Design, Response Rates and Descriptive Results.* (1988) University of Alberta: Population Research Laboratory.

Krahn, Harvey and Graham Lowe. *Work, Industry, and Canadian Society.* (1988a) Scarborough, Ontario: Nelson Canada.

Krahn, Harvey and Graham S. Lowe. *Transitions to Work: Findings from a Longitudinal Study of High School and University Graduates in Three Canadian Cities.* Revised version of a paper presented at the Workshop on the Comparitive Analysis of British and Canadian Youth Labour Markets. (1988b) Banff: Sept-Oct., 1988.

Lessard, Claude. "Equality and inequality in Canadian education.", 184-199 in Ratina Ghosh and Douglas Ray (eds.), *Social Change and Education in Canada.* (1987) Canada: Harcourt Brace Jovanovich.

Livingstone, D. W. "Class, educational ideologies, and mass opinion in capitalist crisis: a Canadian perspective." *Sociology of Education.* 58(1985):3-20.

Livingstone, D. W. "Job skills and schooling: a class analysis of entry requirements and underemployment." *Canadian Journal of Education.* 12(1987):1-30.

Looker, E. Dianne and Peter C. Pineo. "Social psychological variables and their relevance to the status attainment of teenagers." *American Journal of Sociology.* 88(1983):1195-1219.

Marsden, Lorna, Edward Harvey and Ivan Charner. "Female graduates: Their occupational mobility and attainments." *Canadian Review of Sociology and Anthropology.* 12(1975):385-405.

Myles, J., G. Picot and T. Wannell. "The changing wage distribution of jobs, 1981-1986.", 85-138 in Statistics Canada, *The Labour Force.*, Catalogue no. 71-001, Oct., (1988) Ottawa: Minister of Supply and Services Canada.

McCartin, Rosemarie and Katrina A. Meyer. "The adolescent, academic achievement, and college plans: The role of family variables." *Youth and Society.* 19(1988):378-394.

MacKinnon, Neil J. and Paul Anisef. "Self-assessment in the early educational attainment process." *Canadian Review of Sociology and Anthropology.* 16(1979):305-319.

Ornstein, Michael D. "Class, gender, and job income in Canada.", 41-75 in Donald J. Treiman and Robert V. Robinson (eds.), *Research in Social Stratification and Mobility.* (1983) Connecticut: Jai Press.

Pineo, Peter C. "Social mobility in Canada: The current picture." *Sociological Focus.* 9(1976):109-123.

Pineo, Peter C. "Revisions of the Pineo-Porter-McRoberts socioeconomic classification of occupations for the 1981 Census." *OSEP Research Report No. 125.* (1985) Ontario: McMaster University Press.

Pineo, Peter C., John Porter and Hugh A. McRoberts. "The 1971 Census and the socioeconomic classification of occupations." *Canadian Review of Sociology and Anthropology.* 14(1977):91-102.

Porter, John. *The Vertical Mosaic.* (1965) Toronto: University of Toronto Press.

Porter, John, Marion Porter and Bernard R. Blishen. *Stations and Callings: Making It Through the School System.* (1982) Toronto: Methuen.

Porter, Marion, John Porter and Bernard R. Blishen. *Does Money Matter?: Prospects for Higher Education.* (1973) Toronto: Institute for Behavioral Research, York University.

Roberts, K. "The entry into employment: An approach towards a general theory." *The Sociological Review.* 16(1968):165-184.

Rosenberg, Morris. *Conceiving the Self.* Appendix A, New York State Self-Esteem Scale, p. 291 (1979) New York: Basic Books.

Rubery, Jill. "Structured labour markets, worker organisation, and low pay.", (1978) 330-48 in Anthony Giddens and David Held (eds.), *Classes, Power, and Conflict.* 1982. Berkeley/Los Angeles: University of California Press.

Schervish, Paul G. *The Structural Determinants of Unemployment.* (1983) New York: Academic Press.

Sewell, William H., Archibald O. Haller and Alejandro Portes. "The educational and early occupational attainment process." *American Sociological Review.* 34(1969):82-92.

Sewell, William H. and Robert M. Hauser. "Causes and consequences of higher education: Models of the status attainment process." *American Journal of Agricultural Economics.* 54(1972):851-61.

Shaw, R. Paul. "The burden of unemployment in Canada." *Canadian Public Policy.* 11(1985):143-160.

Smith, Doreen L. *Consistency and Congruency in Levels of Occupational Aspiration and Expectation of Students in Selected Single Enterprise Communities.* (1980) University of Alberta: Unpublished Ph.D. Thesis.

Squires, Gregory D. "Education, jobs and inequality: Functional and conflict models of social stratification in the United States." *Social Problems.* 24(1977):436-50.

Statistics Canada. *Standard Occupational Classification 1980.* (1981) Ottawa: Minister of Supply and Services Canada.

Statistics Canada. *The Labour Force.* Catalogue no. 71-001, May, (1985) Ottawa: Minister of Supply and Services Canada.

Statistics Canada. *The Labour Force.* Catalogue no. 71-001, May, (1986) Ottawa: Minister of Supply and Services Canada.

Statistics Canada. *Education in Canada 1986.* Catalogue no. 81-229, (1987) Ottawa: Minister of Supply and Services Canada.

Stewart, A., K. Prandy and R.M. Blackburn. *Social Stratification and Occupations.* (1980) London: MacMillan Press.

Super, Donald E. "A theory of vocational development." *American Psychologist*. 8(1953):185-90.

Super, Donald E. "A life-span, life-space approach to career development." *Journal of Vocational Behavior*. 16(1980):282-298.

Tanner, Julian and Harvey Krahn. *Part-time Work and Deviance Among High School Seniors*. (1988) University of Toronto: Unpublished Paper.

Wallace, Claire. "From girls and boys to women and men: The social reproduction of gender roles in the transition from school to (un)employment.", 92-117 in Stephen Walker and Len Barton (eds.), *Youth, Unemployment and Schooling*. (1986) Philadelphia/Milton Keynes: Open University Press.

Wallace, Claire. *For Richer, For Poorer: Growing Up In and Out of Work*. (1987) London: Tavistock Publications.

Williams, Trevor. "Educational aspirations: Longitudinal evidence on their development in Canadian youth." *Sociology of Education*. 45(1972):107-133.

Willis, Paul. *Learning to Labour: How Working Class Kids Get Working Class Jobs*. (1977) London: Saxon House.

Willis, Paul. "Cultural production is different from cultural reproduction is different from social reproduction is different from reproduction." *Interchange*. 12(1981):48-67.

Wright, Eric Olin. "Class and occupation." *Theory and Society*. 9(1980a):177-214.

Wright, Eric Olin. "Varieties of Marxist conceptions of class structure." *Politics and Society*. 9(1980b):323-70.

Wright, Eric Olin, Cynthia Costello, David Hachen and Joey Sprague. "The American class structure." *American Sociological Review*. 47(1982):709-26.